P E R M I T T O O P E R A T E

Number T-3031-A-1

EQUIPMENT OWNER-OPERATOR:

Tosco Santa Maria Refinery
2555 Willow Road
Arroyo Grande, California 93420

EQUIPMENT LOCATION:

2555 Willow Road
Arroyo Grande, California

FOR THE EQUIPMENT LISTED HEREIN AND SUBJECT TO THE LISTED CONDITIONS

Issued: February 27, 1998, Effective: April 1, 1998 — April 1, 2003
ISSUANCE DATE — **ANNIVERSARY**

ROBERT W. CARR
Air Pollution Control Officer

Application Number: 2104

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Conventions and Abbreviations

A. The following referencing conventions are used in this permit:

1. Referencing of conditions:

   a. The reference for each requirement will be noted in [square brackets].

   b. References which are noted as being "District-only" are not federally-enforceable requirements.

   c. **All conditions with references in [square brackets] that do not contain the phrase "District-only" must be considered federally-enforceable requirements.**

   d. Federally-enforceable conditions, which are under review by the District pursuant to the next to the last paragraph of section II.B.7 of EPA's White Paper Two, are referenced as **[UR-SIP Rule 205]** for "under review and federally-enforceable under SIP Rule 205". EPA claims that these conditions are federal-enforceability solely because of their having been placed as conditions to previously issued authorities to construct. The District claims that these conditions are "District-only" requirements because they do not stem from an overriding federal requirement. Pursuant to the provisions of White Paper Two, the final disposition of these conditions will be decided by the Air Pollution Control Officer (APCO) no later than April 1, 2003.

2. Wherever possible, each requirement, condition, or piece of equipment has been identified with a unique permit section/condition number. e.g., the 30 ppmv NOx limit for the process heaters is condition I.A.1 and the 30 ppmv NOx limit for boiler B505 is I.A.7.

3. Requirements based on current District rules will be noted by the phrase "Rule" followed by the rule number. Requirements based on District rules approved into the State Implementation Plan (SIP) will be noted by the phrase "SIP Rule" followed by the rule number as it appears in the SIP.

4. Concerning citations for the basis of conditions. If the SIP version of a rule is the same as the current version of a rule, only the SIP version will be cited because including both would be considered redundant. If the SIP version of a rule is different than the current version, both will be included.

5. If there is no over-riding need to have the current version of a permit condition be considered federally-enforceable, it will be listed as "District-only". An example of an over-riding need where the current rule would be considered federally-enforceable might be when that rule is needed to support a federally-enforceable limit. In addition, the circumstance described in item 1.d above constitutes an over-riding need for a condition to be considered federally-enforceable.
6. Notations at the beginning or end of a multi-part requirement shall apply to the entire requirement unless specific parts are otherwise referenced.

7. Federal regulation subpart references will typically be indicated by their subpart designation only. The title of all subparts included here are as follows:

   40CFR60 Subpart A, General Provisions (New Source Performance Standards - NSPS)
   40CFR60 Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
   40CFR60 Subpart J, Standards of Performance for Petroleum Refineries
   40CFR60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
   40CFR60 Subpart VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
   40CFR60 Subpart GGG, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
   40CFR60 Subpart QQQ, Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems
   40CFR61 Subpart A, General Provisions (National Emission Standards for Hazardous Air Pollutants - NESHAP)
   40CFR61 Subpart M, National Emission Standard for Asbestos
   40CFR61 Subpart FF, National Emission Standard for Benzene Waste Operations
   40CFR63 Subpart A, General Provisions (NESHAP for Source Categories - MACT)
   40CFR63 Subpart CC, National Emission Standard for Hazardous Air Pollutants from Petroleum Refineries

8. District Rule numbers only, will be used for the most part in this permit. The title of all rules referenced are as follows:

   SIP Rule 106, Standard Conditions
   SIP Rule 113, Continuous Emissions Monitoring
   SIP Rule 114, Gaseous Contaminants Prohibitions
   SIP Rule 201.E, Posting of Permit to Operate
   Rule 204, Requirements (a.k.a. New Source Review)
   SIP Rule 205, Conditional Approval
   Rule 206, Conditional Approval
   Rule 210, Periodic Inspection, Testing and Renewal of Permits to Operate
   Rule 216, Federal Part 70 Permits
   Rule 302, Schedule of Fees
   SIP Rule 401, Visible Emissions
   Rule 402, Nuisance
   Rule 403, Particulate Matter Emission Standards
   SIP Rule 404, Sulfur Compounds Emission Standards, Limitations and Prohibitions
   SIP Rule 406, Carbon Monoxide Emission Standards and Limitations
   SIP Rule 407, Organic Material Emission Standards, Limitations and Prohibitions
   Rule 407, Organic Material Emission Standards
   Rule 411, Surface Coating of Metal Parts and Products
   SIP Rule 419, Petroleum Pits, Ponds, Sumps, Well Cellars, and Wastewater Separators
   SIP Rule 422, Refinery Process Turnarounds

Rule 425, Storage of Volatile Organic Compounds
Rule 430, Control of Oxides of Nitrogen from Industrial, Institutional, Commercial Boilers, Steam Generators, and Process Heaters

B. Other conventions:

1. A "day" shall be considered a 24 hour period from midnight to midnight (i.e., calendar day), unless otherwise noted.

2. Unless otherwise noted, averaging periods are intended to mean:

   a. daily average for hourly limit: total for day divided by 24
   b. 3 hour average for concentration: average concentration over a continuous 3 hour period
   c. 168 hour average for concentration: average concentration over a continuous 168 hour period
   d. quarterly average sulfur content: average of all sulfur content determinations made for during the preceding three month period (see note (a)2 to condition I.A)

3. With the exception of the carbon plant, the process unit identifications are a holdover from the original permit number designations and may not always be sequential. The original carbon plant permit designations had to be dropped entirely because they duplicated permit numbers used in the refinery. Retention of the refinery process-unit-identification-to-original-permit-number-designation link was done to provide continuity between the old and new permit systems. A break in the sequential identifications usually means a permit number had been cancelled. e.g., Process E (sulfur plants) is followed by Process G (oily water treatment). This discontinuity resulted from the cancellation of Permit U-3031-F-1 for an asphalt distillation plant long ago.

C. Abbreviations used in this permit are as follows:

40CFR	Chapter 40 to the Code of Federal Regulations
ACM	asbestos containing material
APCO	Air Pollution Control Officer
atm	atmosphere
CALOSHA	California Occupational Safety and Health Authority
CCR	California Code of Regulations
CMS	continuous monitoring system
CO	carbon monoxide
DCS	Distributed Control System
District	San Luis Obispo County Air Pollution Control District
EPG	electrical power generation
heat exch	heat exchanger
gr/dscf	grains per dry standard cubic foot
H&SC	California Health and Safety Code
KO	knock-out (catch point for liquids in a vapor line)
lb/hr	pounds per hour

lb/mmBtu	pounds per million British thermal units of heat input
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	oxides of nitrogen
NO_2	nitrogen dioxide
NSPS	New Source Performance Standards
O_2	oxygen
P&ID	piping and instrumentation diagram
PM10	particulate matter less than 10 microns
ppmv	parts per million by volume
PR	photochemically reactive (solvent)
PRV	pressure relief valve
RACM	regulated asbestos-containing material
RGG	reduced gas generator
RMP	risk management plan
RVP	Reid vapor pressure
SIC	Standard Industrial Classification
SIP	State of California Implementation Plan
SO_x	oxides of sulfur
SO_2	sulfur dioxide
SSM	startup, shutdown, and maintenance
TABQ	total annual benzene quantity
tpy	tons per year
TEG	triethylene glycol
TRS	total reduced sulfur compounds
TVP	true vapor pressure
UR	under review
VOC	volatile organic compounds
wt%	percent by weight

I. Specific Emission and Operational Limits

A. Emission Limits. The following emission limits shall apply to the identified units: [District-only, Rule 206]

Unit		Limit			Compl-iance	Notes
B-1,C,D-1	B-2A/B(2) B-62A/B(2) B-102A/B(2) B-504 B-506	1.	NOx	0.036 lb/mmBtu or 30 ppmv @3% O_2 dry	annual test and oxygen monitor-ing	(d) [Rule 430, UR-SIP Rule 205, & 40CFR60.44b.a.1.i for B-506 and UR-SIP Rule 205 & District-only Rule 430 for all others]
		2.	CO	400 ppmv @3% O_2 dry	annual test	[UR-SIP Rule 205 & District-only Rule 430]
B-1 &C	B-2A/B(2)	3.	SO_2	0.094 lb/mmBtu 5.61 lb/hr each	triennial stack test	[UR-SIP Rule 205]
	B-102A/B(2)	4.	SO_2	0.094 lb/mmBtu 7.6 lb/hr each	triennial stack test	[UR-SIP Rule 205]
	B-201A/B(2)	5.	NOx	0.090 lb/mmBtu 0.29 lb/hr each	annual test	[UR-SIP Rule 205]
		6.	SO_2	0.094 lb/mmBtu 0.3 lb/hr each	triennial stack test	[UR-SIP Rule 205]
D-2, co-generation boiler	B-505	7.	NOx	30 ppmv @3% O_2 dry	annual test	[UR-SIP Rule 205 & District-only, Rule 430]
		8.	SO_2	100 lb/day	quarter-ly calc-ulation	(a) [UR-SIP Rule 205]
		9.	CO	154 ppmv @3% O_2 dry	annual test	

		10.	VOC	30 ppmv @3% O_2 dry	triennial test	

(continued)

A. Emission Limits. (continued)

Unit		Limit			Compliance	Notes
H, gas oil rack		11.	VOC	2,300 ppmv	each use test	per load avg
K, tail gas unit	B-702	12.	SO_2	100 ppmv @0% O_2 dry	triennial test and AN-1707/ 1709 continuous monitor	[Rule 206 and 40CFR60.104.a.2.i]
				4.8 lb/hr		[Rule 206]
		13.	TRS	383.5 lb/week	triennial test and AN-1707/ 1709 continuous monitor	(b) [Rule 206]
				65 ppmv @0% O_2 dry	annual test and AN-1707/ 1709 continuous monitor	168 hour average [Rule 206]
				300 ppmv @0% O2 dry		instantaneous, (c) [40CFR 60.104.a.2.ii]
		14.	H_2S	10 ppmv @ 0% O_2 dry		(c) [40CFR 60.104.a.2.ii]
R-3, calciner cold stack		15.	SO_2	2000 ppm @12%O_2 dry	annual test	Appendix A [Rule 206 & SIP Rule 114.1.a]
R-2, cooler stack		16.	PM	0.3 gr/dscf	annual test	[SIP Rule 113.1]
S-2, railcar baghouse		17.	PM	0.3 gr/dscf	triennial test	[SIP Rule 113.1]

Notes:

(a) 1) The SO_2 calculations shall be based on 100% oxidation of fuel gas sulfur in the fuel gas to SO_2. The sulfur content of the fuel gas shall be calculated by multiplying the daily amount of fuel gas burned by the quarterly average sulfur content of the fuel gas.

2) The quarterly average sulfur content of the fuel gas shall be calculated by summing all weekly Tutweiler measurements required under condition C.3.c and dividing by the number of weekly readings.

3) The average daily oxides of sulfur (as SO_2) emissions shall be calculated at the end of each quarter.

(b) Total reduced sulfur compounds (TRS) shall be analyzed specifically as COS, CS_2, mercaptans as CH_3SH, and H_2S; and then summed and presented as total reduced sulfur compounds.

(c) Calculated as sulfur dioxide

(d) The B-2A/B heaters and B-506 boiler are the only units with oxygen monitors.

B. Operational Limits. The following operational limits shall apply to the specified units. Compliance will be determined through recordkeeping except as noted: [District-only, Rule 206]

	Unit		Parameter	Limit		Notes
1.	refinery		crude oil throughput	a.	48,000 bbl/day	daily total, wet basis
				b.	16,220,600 bbl/yr	12 month rolling period, wet basis
2.	carbon plant		green coke feed	51,760 lb/hr		daily average
3.	B-1,C	B-2A/B (2)	fuel feed (e)	a.	60.4 mmBtuh each	daily average [UR-SIP Rule 205]
				b.	529,104 mmBtu each	12 month rolling period [UR-SIP Rule 205]
		B-62A/B (2)		c.	16.0 mmBtuh each	daily average [UR-SIP Rule 205]
				d.	140,160 mmBtu each	12 month rolling period [UR-SIP Rule 205]
		B-102A/B (2)		e.	80.5 mmBtuh each	daily average [UR-SIP Rule 205]
				f.	705,180 mmBtu each	12 month rolling period [UR-SIP Rule 205]
4.	B-1, cooling tower		organic	15 mg/l		per sample, weekly test

		compounds in water		

(continued)

B. Operational Limits. (continued)

Unit			Parameter	Limit		Notes
5.	refinery		fuel gas	a.	0.10 gr/dscf H2S (160 ppmv)	AN-603 continuous monitor, 3 hour average [40CFR60.104.a.1 and 40CFR40b.c for B-506]
				b.	0.50 gr/dscf total S (797 ppm)	weekly fuel test & annual analytical test, intentional duplication of condition III.A.1.d.2 [SIP Rule 404.e.1]
6.	refinery and carbon plant	B-504,6 & waste heat boiler	total steam produced	170,000 lb/hr		daily average [UR-SIP Rule 205]
7.	D-1, boiler plant	B-504,6	total steam produced	80,000 lb/hr		(a) and (b), daily and annual averages [UR-SIP Rule 205]
8.	D-2, co-generation boiler	B-505	heat input	a.	100 mmBtuh	daily average [UR-SIP Rule 205]
				b.	821,250 mmBtu/yr	(c), yearly total [UR-SIP Rule 205]
9.	H, gas oil loading rack		truck loading throughput	a.	2,000 bbl/day	[UR-SIP Rule 205]
			pumping rate	b.	500 gpm	
			material received	c.	1.0 psia	RVP
		TK-802	material stored	d.	0.45 psia	RVP
				e.	150°F	[UR-SIP Rule 205]
10.	R-1, calciner preheater		triethylene	226 gal/yr		recharged, rolling 12

		glycol (TEG)		month basis [UR-SIP Rule 205]

(continued)

B. Operational Limits. (continued)

Unit		Parameter	Limit		Notes
11.	R-2, calciner multiclone	pressure drop	≤5 in H_2O		local gauge, instantaneous
12.	R-3, cold stack baghouse	individual module pressure drop	a.	≤6 in H_2O	local gauge, instantaneous
		total pressure drop	b.	≤9 in H_2O	control room gauge, instantaneous
13.	U, sulfur pelletizing plant	pelletizer throughput	a.	30 tons/hr	
		screen throughput	b.	50 tons/hr	
		open stockpile storage	c.	25,000 tons	(d)
14.	AN-603 H2S CMS	calibration drift	a.	≤12 ppm	[40CFR60.PS-7.2.2]
		relative accuracy	b.	16 ppm or 20% of RA mean	[40CFR60.PS-7.2.3]
15.	AN-1707/1709 TRS CMS	calibration drift	a.	≤8.75 ppm	[40CFR60.PS-5.2.2]
		relative accuracy	b.	30 ppm or 20% of RA mean	[40CFR60.PS-5.2.3]

Notes:

(a) Daily average is over a 24-hour period when receiving steam at a rate of 80,000 lb/hr. When receiving steam at a lower rate, boiler steam production from entire boiler plant can be increased to achieve a total steam load not to exceed the limit of 170,000 lb/hr of condition III.B.6.

(b) Annual averaged is over one (1) calendar year. The 80,000 lb/hr annual average shall not apply to periods when the carbon plant waste heat boiler is not operating. Specifically, the annual average equals {the sum of the 24 hour averages of refinery steam production for all days of any given year that the carbon plant waste heat boiler produced steam which was then used at the refinery} divided by {the number of days in any given year that the carbon plant produced steam which was then used by the refinery}.

(c) Calendar year basis. This value shall be determined based upon the annual fuel flow rate and

the most current higher heating value that has been approved by the District during source testing.

(d) Prior approval for additional storage may be obtained from the APCO.

(e) The fuel gas heat content shall be based on the results of the most recent compliance testing.

II. Facility Description:

A. General: This facility is a combined petroleum refinery and petroleum coke calciner, each of the two portions have a major Standard Industrial Classification (SIC) Code of 29. Raw petroleum enters the refinery by pipeline. Products leave as semi-refined petroleum by pipeline or tanker truck; as calcined or uncalcined solid petroleum coke by rail or haul truck; and as recovered sulfur by haul truck. The primary processes involve: raw material storage, atmospheric pressure distillation, vacuum distillation, delayed coking of residual solids, coke impurity removal through calcining, product storage, and product shipping. Secondary processes include: a refinery fuel gas system, a relief flare system, steam production, sulfur recovery, and oily water treatment. Three extraordinary aspects of the operation worthy of specific note are: the coke calciner heat recovery and particulate emission control system, petroleum storage tanks utilizing domed roofs and vapor recovery, and the five megawatt cogeneration system.

The calciner heat recovery system was installed in the late 1970's because the original calciner exhaust, through what is called the "hot stack", was found to emit excessive particulate matter. A baghouse was installed to control those emissions and the upstream waste heat boiler was added to reduce the temperature, and thus the cost, of the construction and operation of that baghouse. The resulting exhaust gas is discharged through the "cold stack". Steam produced by the boiler is used in the crude oil refining process, which displaces the need to burn fuel to produce that steam. The result is lower combustion emissions for the refinery as a whole.

Domed roofs and vapor recovery were added to several large storage tanks in the refinery, judged to have a high odor potential, in the early 1990's. This effort was one of many in response to a conditional order of abatement brought by the District's Hearing Board. A natural gas blanket is applied under the dome to each tank. As the fluid level in any given tank drops, natural gas is bled into the dome to maintain a positive pressure. As the fluid level rises in any given tank, the blanket gas, which now may contain odorous compounds, is vented to the refinery make gas system where the H_2S absorption units are used to remove any odorous compounds as elemental sulfur.

The cogeneration system is used to generate electricity from excess fuel gas that is not needed elsewhere in the refinery. In the mid-1990's, the shutdown of the Guadalupe oil field, where fuel gas was burned to produce enhanced oil recovery steam, and the Battles gas plant, where fuel gas was converted to pipeline quality natural gas, the refinery found itself with more gas than it needed and nowhere to put it. The cogeneration unit was their solution and consists of the B-505 boiler, which burns the excess gas to produce high quality steam, and a five megawatt steam turbine. The B-505 boiler emissions were new to the refinery but were offset by emission reductions from the Battles gas plant shutdown. Thus, this project did not directly result in any emissions change to the region. This is because, even though offsets involve a 20% surcharge to fund the District's community bank (one part of new emissions must be offset by 1.2 parts of old emissions), those community bank emissions are still available for re-use.

B. Specific Equipment: Equipment descriptions are organized by process. Major emission

units are listed but all associated valves, flanges, piping, and minor emission units, which are not explicitly identified, are also included in this permit and subject to their respective major emission unit's requirements.

1. Process Unit A-1, Petroleum Tank Farm; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	gas oil (2)	TK-800,801	76,500 bbl each	welded shell, external floating pontoon roof, single shoe seal, 345.6 foot circumference [District-only, Rule 206]
b.	crude oil (3)	TK-900,901	92,000 bbl each	welded shell, external floating pontoon roof, primary shoe and zero-gap secondary wiper seals, 421 foot circumference [District-only, Rule 425.E.1]
		TK-903	92,000 bbl	welded shell, external floating pontoon roof, primary shoe and zero-gap secondary wiper seals, 421 foot circumference [Rule 425.E.1 & 40CFR60-Kb]
c.	recovered oil (2)	TK-100,101	9,460 bbl each	welded shell, dome roof, vented to Process A-2 [District-only, Rule 425.E.3]
d.	pressure distillate (2)	TK-550,551	52,000 bbl each	welded shell, dome roof, vented to Process A-2 [Rule 425.E.3 & SIP Rule 407.A.2]

2. Process Unit A-2, Tank Farm Vapor Recovery System; controlling vapors from Tanks 100, 101, 351, 550, and 551; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	blower suction knock-out drum	F-455		24" D x 5' T
b.	blower suction drip pot	F-456		13" D x 36' T
c.	vapor recovery blower (2)	GB-451	582 acfm	40 hp
d.	blower recycle cooler (2)	E-450		
e.	tank 351 drip pot	F-353		16" D x 22" T

3. Process Unit B-1, Coking Unit "A"; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	crude fraction-ating heater	B-2A	65.0 mmBtuh	eight (8) John Zink InfurNOx PSMR-16RM burners with automatic oxygen feedback control
b.	vacuum distilla-tion heater	B-62A	17.2 mmBtuh	three (3) John Zink InfurNOx PSMR-15RM burners
c.	coking heater	B-102A	88.6 mmBtuh	twenty-four (24) John Zink InfurNOx PSMR-13RM burners
d.	coke drums (2)	D-101A, D-102A		
e.	coker fractionator	D-103A		
f.	gas recovery compressor	G-212A	1400 hp	turbine driven compressor with steam supplied by B-201A
g.	gas recovery steam superheater	B-201A	3.2 mmBtuh	
h.	cooling tower			serving Processes **B-1** and **C**

4. Process Unit B-2, Coker Steamout System; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	steamout quench tower	F-411		12' & 9' D x 35' T
b.	steamout condensate drum	F-415		6'6" D x 18' T
c.	steamout overhead condenser	E-411	62.4 mmBtuh	heat exch, no atm vent
d.	steamout accumulator	F-412		7' D x 35' T
e.	quench tower circulating pump (2)	G-411	220 gpm each	
f.	heavy recovered oil pump (2)	G-412	40 gpm each	
g.	light recovered oil pump (2)	G-413	330 gpm each	

(continued)

4. Process Unit B-2, Coker Steamout System; (continued)

TITLE		ID	CAPACITY	DESCRIPTION
h.	steamout water pump (2)	G-414	147 gpm each	
i.	coke strainer (2)	F-413		12" D x 28" T
j.	open top, coke cooling water storage tanks (2)	TK-405,6	20,000 bbl	71' D, manually positioned oil skimmers

5. Process Unit B-3, Gland Oil System; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	gland oil tank	F-115	500 bbl	vented to F-117
b.	gland oil pump (2)	G-112	90 gpm each	
c.	gland oil filters (2)	F-116		12"D x 2'T each
d.	carbon canister (2)	F-117	400 lbs carbon each	

6. Process Unit C, Coking Unit "B"; consisting of:

TITLE		ID	CAP.	DESCRIPTION
a.	crude fractionating heater	B-2B	65.0 mmBtuh	eight (8) John Zink InfurNOx PSMR-16RM burners with automatic oxygen feedback control
b.	vacuum distilla-tion heater	B-62B	17.2 mmBtuh	three (3) John Zink InfurNOx PSMR-15RM burners
c.	coking heater	B-102B	88.6 mmBtuh	twenty-four (24) John Zink InfurNOx PSMR-13RM burners
d.	coke drums (2)	D-101B,102B		
e.	coker fractionator	D-103B		
f.	gas recovery compressor	G-212B	1400 hp	turbine driven compressor with steam supplied by B-201B
g.	gas recovery steam superheater	B-201B	3.2 mmBtuh	
h.	coke transfer conveyor system			bridge crane, hopper (2), and convey-or (2) serving Processes **B-1** and **C**

7. Process Unit D-1, Main Boiler plant; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	steam boiler	B-504	125 mmBtuh	Nebraska, 100,000 lb-stm/hr, burner: low-nox North American 4211-140-LE, fuel gas only
b.	steam boiler	B-506	127 mmBtuh	B&W model FM103-97, burner: low-nox North American 4211-116-LE, fuel gas only
c.	water pump IC engines	G-515-1 G-515-2	260 hp each	Duetz

8. Process Unit D-2, Electrical Power Generation (EPG) Plant; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	fuel gas storage (2)		4,000 cu.ft. (each) @ 150 psig	pressure vessels
b.	boiler	B-505	70,000 lb stm/hr & 100 mmBtuh	Babcock and Wilcox with Coen CFP/LN-32 burner, flue gas recirculation, and automatic oxygen feedback control
c.	steam driven turbine	N-970	7115 hp @ 60,000 lb-stm/hr	
d.	electrical generator	GT-970	5.2 MW	

9. Process Unit E-1, Sulfur Recovery Units A and B; each of a three (3) stage Claus design with 91 long ton per day capacity and consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	acid gas knock-out drum	F-612		3' D x 10'6" T
b.	acid gas preheater	E-600	0.211 mmBtuh	no vent to atmosphere
c.	process water stripper overhead knock-out drum	F-355		3' D x 8' T
d.	reaction furnace & waste heat boiler	B-600	16.1 mmBtuh	Comprimo burner (no vent to atmosphere)
e.	process water stripper knock-out drum cond pump (2)	G-358	30 gpm each	

(continued)

9. Process Unit E-1, Sulfur Recovery Units A and B (continued)

TITLE		ID	CAPACITY	DESCRIPTION
f.	sulfinol acid gas knock-out drum pump	G-618	30 gpm	
g.	converters (2)	D-603/5		
h.	in-line heater	B-605		(no vent to atmosphere)
i.	waste heat condenser	E-611		
j.	air blower (3)	GB-611		drives: two each steam turbine and one electric
k.	sulfur condensers (4)	E-605/8 & E-610/12		
l.	discharge gas analyzer	AT-601		no vent to atm
m.	sulfur recovery unit incinerator	B-602		
n.	sulfur pit			vented to B-602

10. Process Unit E-2, Sulfur Recovery Support Units (common to Units A and B); consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	sulfur plant relief drum	F-617		3'6" D x 7' T
b.	relief drum pump (2)	G-617	15 gpm each	
c.	spare turbine	GB-611		

11. Process Unit G, Oily Water Treatment; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	oily water sewer system			refinery-wide
b.	covered diversion box	F-820		10' H x 10' W x 10' D, atm vent
c.	covered API oil-water separator (3)	F-821A, B,C	535 gpm each	85' L x 12' W x 8' H, natural gas blanket vented to **Process A-2**
d.	recovered oil surge drum	F-824	110 bbl	fixed roof, natural gas blanket vented to **Process A-2**
e.	recycled solids tank (2)	F-408,9	120 bbl each	fixed roof, natural gas blanket vented to **Process A-2**
f.	safety surge tank (2)	TK-822,3	40,000 bbl	floating roof, 120' diameter, 377' circumference, mechanical shoe primary, rim-mounted secondary, and under-roof oil skimmer
g.	effluent air cooler	E-801	7.1 mmBtuh heat removal	fin-fan heat exchanger

12. Process Unit H, Gas Oil Loading Rack; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	gas oil tank	TK-802	440 bbl	fixed roof, 12' D x 23'9" T, insulated
b.	loading & unloading rack			submerged top-load or bottom-load
c.	loading pump		40 hp	

13. Process Unit I, Hydrogen Sulfide Absorption Unit "A"; consisting of:

TITLE		ID	DESCRIPTION
a.	sulfinol H_2S absorber	D-601	3'7" D x 61' T
b.	sulfinol stripper	D-602	5' D x 62' T
c.	rich amine flash drum	F-600	7' D x 26' L
d.	hydrogen sulfide scrubber	F-616	18" D 13' T
e.	sulfinol storage and handling system		
f.	carbon filtration system		

14. Process Unit J, Hydrogen Sulfide Absorption Unit "B"; consisting of:

TITLE		ID	DESCRIPTION
a.	sulfinol H_2S absorber	D-601	4' D x 77' T
b.	sulfinol stripper	D-602	6' D x 68' T
c.	fuel gas H_2S analyzer	AN-603	Del Mar Sulfur Smart model 3200, monitors output of both units I & J
d.	rich amine flash drum	F-600	7' D x 26' L
e.	hydrogen sulfide scrubber	F-616	18" D 13' T
f.	sulfinol storage and handling system		
g.	carbon filtration system		

15. Process Unit K, Tail Gas Treating Unit; utilizing a vanadium-based liquid solution and consisting of:

TITLE		ID	DESCRIPTION
a.	reduced gas generator (RGG)	B-701	
b.	hydrogenation reactor	D-701	
c.	contact condenser/desuperheater	D-702	

(continued)

15. Process Unit K, Tail Gas Treating Unit (continued)

TITLE		ID	DESCRIPTION
d.	absorber/reaction tank	F-704	
e.	tail gas combustor	B-702	discharging to atm
f.	three-stage oxidizer system	F-701/2/3	Claus reaction
g.	tail gas emissions monitor	AN-1707/1709	
h.	sulfur melt pit	F-716	
i.	temporary desalting plant (brought to the site as needed)		no vent to atm
j.	sulfur froth handling system		
1)	froth tank	F-712	25' D x 18 ' T
2)	Verti-press filter	ME-701	with bagging system

16. Process Unit L, Product Pump System; consisting of:

TITLE	ID	DESCRIPTION
electrically driven pump (2)	G-50	tandem barrier-fluid seals vented to **Process A-2**

17. Process Unit M, Compressor Engine; consisting of:

TITLE	ID	DESCRIPTION
spare plant-air compressor engine	GE-524-S	diesel fired, Caterpillar model 3306

18. Process Unit N, Portable Abrasive Blasting Equipment; consisting of:

TITLE		CAPACITY	DESCRIPTION
a.	sandpot	250 lb	portable, Kelco
b.	sandpot	500 lb	portable, Kelco, model 124
c.	blast guns		Kelco, model 24-36-W with nozzle numbers 5 thru 10
d.	compressor	70 hp	Joy model D-185-S
e.	compressor	112 hp	Ingersol Rand P375WD
f.	compressor	49 hp	Ingersol Rand R-185
g.	blasting containment structure		24' x 20' x 15', 85% opaque screen

19. Process Unit O, Hydrocarbon Relief and Recovery System; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	relief drum	F-451		8' D x 32' L
b.	quench tower	D-451		11' D x 28'6" T
c.	blower suction knock-out drum	F-452		24" D x 5' T
d.	blower suction drip pot	F-453		12" D x 36" T
e.	vapor recovery blower	GB-455	833 mscfd	40 hp
f.	blower recycle cooler	E-452	47.4 mBtuh	heat exch, no atm vent
g.	blower discharge cooler	E-458	0.45 mmBtuh	heat exch, no atm vent
h.	blower discharge knock-out drum	F-458		30" D x 6' T
i.	discharge knock-out drum pump	G-458	10 gpm	
j.	light recovered oil pump (2)	G-454	100 gpm each	
k.	flare stack and seal drum	C-451		24" D x 200' H, steam-assisted
l.	Flare Gas Flowmeter			Panametric, model 7168, ultrasonic
m.	flare stack sampling system to determine flared gas heat content		auto sample after 5 minutes of flared gas flow	Welker Engineering, downstream of D-451 quench tower
n.	heavy recovered oil pump (2)	G-453	250 gpm each	
o.	quench tower bottoms pump (2)	G-452	250 gpm each	
p.	recovered oil cooler	E-451	30 mmBtuh	heat exch, no atm vent

20. Process Unit P, Process Water System; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	process water stripper	D-351		5' D x 93' T
b.	process water tank	TK-351	40,000 bbl	domed roof, vent to **Process A-2**
c.	feed/effluent exchanger	E-351	12.0 mmBtuh	heat exch, no atm vent
d.	stripper reboiler	E-353	24.7 mmBtuh	heat exch, no atm vent
e.	stripper overhead condenser	E-352	17.6 mmBtuh	heat exch, no atm vent
f.	stripper water cooler	E-354	5.4 mmBtuh	heat exch, no atm vent
g.	feed pump (2)	G-351	265 gpm each	
h.	stripper water pump (2)	G-352	280 gpm each	
i.	stripper reflux pump (2)	G-353	50 gpm each	
j.	skim oil pump	G-354	20 gpm	
k.	tank block sump pump (2)	G-357	20 gpm each	
l.	stripper feed filters	F-352		18" D x 3' T
m.	caustic storage tank	F-354		10' D x 17' H
n.	caustic circulation pump	G-356	50 gpm	
o.	caustic injection pump	G-355	30 gph	

21. Process Unit Q, Green Coke Handling System; consisting of:

TITLE		CAPACITY	DESCRIPTION
a.	sizing screen		three deck, 6' x 16', FMC model CA-3616
b.	conveyors (4)		
c.	stock-piles	five (5) grades	green coke receipts; plus 1/4" kilnfeed; 1/4" x 1"; 1/4" x 6 mesh; & minus 6 mesh (fines)
d.	asphalt emulsion system		
1)	tank	13,500 gal	heated with boiler blowdown water
2)	water heater	250 gal	natural gas fired
3)	spray truck	1,175 gal	with spray bar
4)	portable tank	330 gal	with sprayer
5)	electric pump		for filling truck

22. Process Unit R-1, Petroleum Coke Calciner; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	coke preheater			
1)	feed conveyor		100 tph	2' W x 400' L
2)	preheat chamber			20' W x 30' L x 30' H
3)	circulating fans		25,000 acfm	alternating between fans
4)	temperature control			
i.	triethylene glycol (TEG) tank		4,500 gal	pressure vessel
(a)	nitrogen blanket		2 psig	
(b)	pressure relief valve		3 psig	discharge to carbon filter
(c)	emergency relief valve		6 psig	discharge to atmosphere
ii.	circulating pumps (2)		140 gpm each	Gould model 3196 ST
iii.	shell and tube heat exchanger			heat exch, no atm vent
iv.	electric heater		0.8 mmBtuh	no atm vent

(continued)

22. Process Unit R-1, Petroleum Coke Calciner (continued)

TITLE		ID	CAPACITY	DESCRIPTION
v.	heater relief valve		150 psig	discharge to TEG tank
vi.	return line relief valve		1 psig	discharge to TEG tank
b.	refractory lined rotary kiln		13 mmBtuh	9' ID x 160' L, Kennedy Van Saun
c.	rotary product cooler			
d.	kiln gas exit train			
1)	refractory lined afterburner			9' ID x 30' L
2)	settling chamber			15' W x 20' L x 20' H
3)	refractory lined pyroscrubber			20' W x 68' L x 35' H
i.	burner (3)		60 mmBtuh each	refinery fuel gas fired, vent to waste heat boiler
ii.	combustion air blower		42,000 scfm	
4)	refractory lined hot stack			14' ID x 128' T, four stack cap leaves
e.	coke reclaim			
1)	hopper	4041	12.5 ton	17' L x 7' W x 9' H
2)	hopper conveyor	4042		21" W x 33' L
3)	cooler feed conveyor	4121		18" W x 43' L, vent to kiln burner fan

23. Process Unit R-2, Coke Calcining Kiln, Cold-Side Control System; consisting of:

TITLE		ID	DESCRIPTION
a.	multiclone	4056	Zurn model MTSA-24-9CYT-STD
b.	wet scrubber		Western Precipitator, Type D-B, size 32, Turbulaire Gas Scrubber

24. Process Unit R-3, Coke Calcining Kiln, Hot-Side Control System; consisting of:

TITLE		CAPACITY	DESCRIPTION
a.	waste heat boiler	100,000 lb/hr steam @600 psig, 515°F	Zurn Industries
b.	magnesium hydroxide addition system		injection point at pyroscrubber exit bustle
c.	baghouse		six modules, 13' x 14' 28' H each, 168 eight inch dia. x 286" L fiberglass bags each
1)	heater	12 mmBtuh	fuel gas fired
2)	induced draft fan	122,000 cfm	
d.	cold stack		5.25' dia. x 110' H
e.	baghouse fines system		vent to main baghouse inlet
1)	cyclone		catch discharged to enclosed bin
2)	baghouse		2.5' dia. x 5' H
3)	cartridge filter		
4)	vacuum blower	565 cfm	
5)	fines bin		enclosed

25. Process Unit S-1, Calcined Coke Storage and Handling; consisting of:

TITLE		CAPACITY	DESCRIPTION
a.	enclosed bucket elevator		12" W x 95' H
b.	bypass bin		20' H x 15' dia.
c.	covered cross conveyor		18" W x 103' L
d.	triple deck screen		4' W x 12' L, Simplicity model M-120A
e.	single deck screen		60" dia., Sweco
f.	storage silo	1,270 ton total	four compartment

(continued)

25. Process Unit S-1, Calcined Coke Storage and Handling; (continued)

TITLE		CAPACITY	DESCRIPTION
g.	oversized product storage bin		9' W x 9' L x 15' H
h.	steel reclaim hopper		8' W x 16' L x 5' T, discharge to load-out conveyor
i.	covered load-out conveyor		24" W x 231' L
j.	loading chute and shroud		

26. Process Unit S-2, Calcined Coke Loading Control System; consisting of:

TITLE		CAPACITY	DESCRIPTION
a.	baghouse	12,200 cfm, 15 hp	Western Precipitation Pulsflo model PF 4595-216, 2315 sq.ft. bag surface area

27. Process Unit S-3, Calcined Coke Portable Handling Equipment; consisting of:

TITLE		ID	CAPACITY	DESCRIPTION
a.	hopper (2)	4005,6	10 ton each	used for stockpiling, blending, or feeding calcined or green coke or elemental sulfur as needed
b.	stacker conveyor (2)	4137,8		used for stockpiling, blending, or feeding calcined or green coke or elemental sulfur as needed
c.	semi-portable hopper and conveyor	4004	10 ton	hopper: 16' L x 9' W x 12' H, conveyor: 24" W x 19' L, used for green coke blending and emergency green coke feed upon failure of normal vibratory feeder

28. Process Unit U, Sulfur Pelletizing Plant; consisting of:

TITLE		ID	CAP.	DESCRIPTION
a.	sulfur pump	6000	10 hp	
b.	pelletizing nozzle	6007		
c.	inclined bagging conveyor	6017	1.5 hp	
d.	bagger	6025		
e.	hopper with delumper	6026	2 hp	
f.	conveyor	6027	7.5 hp	between **e** and **g**
g.	conveyor	6028	7.5 hp	between **f** and **g**
h.	rod deck screen	6030	7.5 hp	4' x 8', Symon
i.	screen delumper		3 hp	
j.	screened product silo			two compartment: 60+ mesh and 40+ mesh
k.	portable bagger conveyor and hopper		3 hp	
l.	sulfur storage pit			16' W x 19' L x 13.5' D, below grade

29. Process Unit V, Product Elevator Bypass System; equipment ID 4090, consisting of:

TITLE		DESCRIPTION
a.	elevator bypass flop gate	
b.	uncovered conveyor	48' L
c.	spray hoop	

C. Insignificant Equipment. The following equipment and equipment types are considered environmentally insignificant. This equipment is not subject to the provisions of this permit except for those units which are subject to a federally-enforceable, generally applicable requirement as listed in section III.A.1.

Description	Basis for Insignificance
chemical laboratory analytical equipment	Rule 201.A.1
internal combustion engines rated at <50 bhp	Rule 201.B.1
restroom water heaters	Rule 201.B.2
coke handling mobile equipment	Rule 201.C.2
diesel storage tanks used for vehicle refueling	Rule 201.I.4
gasoline storage tanks used for vehicle refueling	Rule 201.I.9
architectural coating spray guns	Rule 201.J.1
cold solvent cleaners	Rule 201.J.2
comfort air conditioning	Rule 201.M.1
comfort space heating	Rule 201.M.5
welding equipment	Rule 201.N.2
bead blaster	Rule 201.A.1
firewater pump internal combustion engines (4 each, G-516-1/2 and G-515-1/2)	Rule 201.B.3

III. CONDITIONS

A. STANDARD CONDITIONS

1. Generally Applicable Requirements. For the purposes of this permit, all requirements shall be based on standard conditions of 60°F and 14.7 psia. [SIP Rule 106]

a. Visible emissions shall not exceed Ringlemann #2 or forty percent (40%) opacity for a period exceeding three (3) minutes aggregated in any sixty (60) minute period of time. [H&SC 41701 and SIP Rule 401]

1) This condition shall not apply to open outdoor fires, which have been approved by the APCO, for the purposes of employee instruction in fire fighting methods. [SIP Rule 401.B.3]

b. If the APCO determines that the operation of this equipment is causing a public nuisance, Tosco shall take immediate action to eliminate such nuisance. [District-only, Rule 402]

c. Particulate matter emissions shall not exceed any of the following: [SIP Rule 113]

1) 0.3 gr/dscf, on an hourly basis, for all emission units except combustion devices.

2) That lb/hr amount identified in Table I of SIP Rule 113 depending on process rate.

3) 0.3 gr/scf corrected to 3% O_2 (wet) for combustion device emission units.

4) 0.3 gr/scf corrected to 12% CO_2 for combustion device emission units. [District-only, Rule 403]

d. Sulfur compound limitations: [SIP Rules 114.1 and 404.E]

1) Sulfur compound emissions shall not exceed 0.2 percent by volume of sulfur compounds calculated as sulfur dioxide; excluding units B-602A/B, which are exempt under SIP Rule 114.1.c, and excluding the calciner cold stack, which is subject to condition I.A.14.

2) Gaseous fuel sulfur content shall not exceed 50 gr/100 dscf (797 ppmv) total sulfur (as H_2S at standard conditions).

3) Liquid fuel sulfur content shall not exceed 0.5 wt% sulfur.

e. Carbon monoxide emissions shall not exceed 2000 ppmv at standard conditions, except for internal combustion engines. [SIP Rule 406]

f. Metal surface coatings shall not be thinned or reduced with photochemically reactive solvents, as defined in District Rule 407. [SIP Rule 407.H.2]

g. Architectural coatings, which are purchased in containers of one quart capacity or larger, shall not contain photochemically reactive solvents nor shall they be thinned or reduced with photochemically reactive solvents. [SIP Rule 407.H.3]

h. No photochemically reactive solvent, or any material containing that amount of photochemically reactive solvent, may be evaporated in any given day during the disposal of that solvent or material. [Rule 206 and SIP Rule 407.H.4]

i. Tosco shall not vent organic compounds to the atmosphere during the depressurization, or vessel purging, steps of a refinery process turnaround. Compliance shall be accomplished by venting all uncondensing organic gases to a fuel gas system or to a flare. [SIP Rule 422]

j. This facility must comply with all applicable provisions of the Air Toxic "Hot Spots" Act as set forth in Health and Safety Code Section 44300 (*et seq.*). [District-only, H&SC 44300 (et seq.) and, District-only, Rule 204.F.1]

k. All abrasive blasting shall be conducted in accordance with Title 17 of the California Code of Regulations (CCR). [District-only, CCR92000 (*et seq.*) and, District-only, Rule 206]

    1) Each operator of this equipment shall be supplied with a copy of the abrasive blasting provisions of Title 17 and the APCO prepared summary of Title 17.

    2) Abrasive blasting of items smaller than eight feet must be conducted within an enclosure or indoors.

    3) All dry, unconfined blasting shall utilize ARB certified abrasives.

    4) Areas surrounding the blasting operation shall be periodically washed, swept, vacuumed, or otherwise cleaned to prevent re-entrainment of dust.

l. This equipment shall be operated consistent with the information provided in the applications under which this permit, or previous versions of this permit, were issued and shall be maintained in good working order at all times and in such a manner as to minimize the emission of air contaminants. [UR-SIP Rule 205]

m. The APCO shall be notified in writing before any changes are made in the design, construction, or operation of this equipment or any modifications are made to process condition which might increase the emission of air contaminants. [UR-SIP Rule 205]

n. All equipment shall be properly maintained and kept in good operating order. [District-only, Rule 206]

o. Spilled petroleum material shall be cleaned up as soon as possible to minimize hydrocarbon emissions and odors. Clean up materials shall be stored in closed containers in accordance with applicable regulations and disposed of as hazardous

material in compliance with federal, state, and local regulation. [District-only, Rule 206]

p. Any gasoline transfer to a stationary storage tank shall utilize a permanently installed submerged fill pipe and a tight-fitting nozzle. [SIP Rule 407.C.1.a]

q. Tosco shall follow good operating practices when storing or transferring gasoline including: [SIP Rule 424.B.5]

    1) preventing spills;

    2) utilizing closed storage containers; and

    3) disposing of any gasoline in compliance with all applicable federal, state, and local regulations.

r. Tosco shall ensure that cold solvent metal cleaning devices, with the exception of wipe clean operations:

    1) utilize: [SIP Rule 416.B]

        i. A container for the solvent and the articles being cleaned;

        ii. A cover, easily operated with one hand, which prevents the solvent from evaporating when the cleaning device is not in use;

        iii. A shelf for draining cleaned parts such that the drained solvent is returned to the solvent storage container;

        iv. A permanent, conspicuous label, which lists all applicable operating requirements; and

        v. A freeboard ratio equal to or greater than 0.75, if the solvent surface area is greater than or equal to 5.4 square feet; and

    2) are operated as follows: [SIP Rule 416.C]

        i. All degreasing equipment and emission control equipment must be operated and maintained in good working order.

        ii. No solvent may be allowed to leak from the degreasing equipment.

        iii. All solvent must be stored and disposed of in a manner which prevents its evaporation to the atmosphere.

        iv. The cover of any cleaning device shall not be removed unless that device is in use or undergoing maintenance.

v. The operator shall drain parts: for at least 15 seconds after cleaning or until dripping ceases.

vi. Flowing solvent shall consist of a liquid stream and not a fine, atomized, or shower type spray; and the motive pressure for that solvent flow shall be sufficiently low to prevent the splashing of solvent beyond the container.

s. Tosco shall not ignite or maintain an open outdoor fire except as approved by the APCO for the purposes of employee instruction in fire fighting methods. [SIP Rule 501.A]

t. All subject processes shall comply with applicable provisions of 40 CFR 61, National Emission Standards for Hazardous Air Pollutants, subpart A, General Provisions, and all of the provisions of subpart M, Asbestos. Specifically:
[40CFR61.05.c and subpart M]

1) General Provisions. Tosco shall:

i. Not fail to report, revise reports, or report source test results as required by subpart M. [40CFR61.05.d]

ii. Ensure that any change to the information provided in the initial notification under 40CFR61.10.a shall be submitted to the APCO no later than 30 days after that change. [40CFR61.10.c]

iii. Ensure that each subject process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [40CFR61.12.c]

iv. Ensure that regulated asbestos containing material (RACM) workers are adequately trained in accordance with 40CFR60.145.c.8. [40CFR61.145.c.8]

v. Not install or reinstall RACM. [40CFR61.148]

2) Applicability. The notification and procedural requirements of subpart M apply to demolition and renovation activity of regulated asbestos-containing material (RACM) involving: [40CFR61.145.a.1]

i. at least 260 linear feet of RACM on pipes;

ii. at least 160 square feet of RACM on other components; or
iii. at least 35 cubic feet of RACM which has been removed from refinery components and is no longer otherwise measurable in the above units.

3) Notifications. Tosco shall submit the following notifications to the APCO and CALOSHA:

i. no later than ten (10) working days prior to any renovation or demolition

involving that amount of RACM identified in condition III.A.1.t.2 and using a form similar to that shown in figure 3 to subpart M: [40CFR61.145.b.4]

(a) identify the notification as either an original or a revision;

(b) name, address, and telephone numbers of both the facility and the contractor, if appropriate;

(c) identify the activity as either demolition or renovation;

(d) location and description of the affected part of the facility including the affected part's size, age, and use;

(e) procedure used to detect the presence of RACM;

(f) the estimated amount of RACM involved and the basis for that estimate;

(g) scheduled starting and completion dates of the RACM work;

(h) description of RACM work, including the work practices, engineering controls, and waste-handling procedures to be used to comply with subpart M;

(i) name, location, and telephone number of the waste transporter and disposal site;

(j) certification that al least one properly trained person will supervise the activity; and

(k) description of procedures to be followed in the event that unexpected RACM is found or that Category II nonfriable asbestos containing material becomes crumbled, pulverized, or reduced to powder.

ii. If an RACM activity start date is after the date given in the original notification, provide verbal notification of the new date as soon as possible before the original date and a written notification as soon as possible, but no later than the original start date. [40CFR61.145.be]

iii. If an RACM activity start date is earlier than the date given in the original notification, provide written notification at least 10 working days before the new start date. [40CFR61.145.b.3.iv.B]

iv. Update any previously provided notice, if the amount of RACM involved changes by at least 20% or if the start or end date of any activity changes. [40CFR61.145.b.2]

4) Emission Controls. Tosco and/or their contractor(s) must comply with the

procedures for asbestos emission control identified in 40CFR61.145.c. [40CFR61.145.c]

5) Waste Disposal. Tosco shall:

i. Not discharge any visible emissions to the ambient air during the collection, processing, packaging, or transporting of asbestos-containing material (ACM), except as allowed by 40CFR61.150.a. [40CFR61.150.a]

ii. Ensure that all ACM is properly disposed of as soon as practicable. [40CFR61.150.b]

iii. Ensure that vehicles used to transport ACM are marked with visible signs in accordance with 40CFR61.149.d. [40CFR61.150.c]

iv. Provide a copy of the ACM waste shipment record, as required under condition III.B.1.w.1, to the disposal site operator when the waste is delivered to their site. [40CFR61.150.d.2]

v. If a copy of a waste shipment record is not received within 35 days of the date that ACM waste was accepted by an initial transporter, contact the transporter(s) or the owner/operator of the designated waste disposal site to determine the status of the waste shipment. [40CFR61.150.d.3]

vi. If a copy of a waste shipment record is not received within 45 days of the date that ACM waste was accepted by an initial transporter, provide a written report to the APCO and CALOSHA which includes the waste shipment record of concern and details Tosco's efforts to determine the shipment's status. [40CFR61.150.d.4]

u. All subject processes shall comply with the provisions of 40 CFR 61, National Emission Standards for Hazardous Air Pollutants, subpart A, General Provisions, and subpart FF, Benzene Waste Operations. [40CFR61.05.c and subpart FF]

1) General Provisions

i. Tosco shall not fail to report, revise reports, or report source test results as required by subpart FF. [40CFR61.05.d]

ii. Any change to the information provided in the initial notification under 40CFR60.10.a shall be submitted to the APCO no later than 30 days after that change. [40CFR61.10.c]

iii. Each subject process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [40CFR61.12.c]

2) Tosco shall determine the total annual benzene waste quantity (TABQ) generated using the procedures in 40CFR61.355: [40CFR61.355.a]

i. annually for the preceding calendar year; and

ii. whenever there is a change in the process generating the waste that could cause the TABQ to increase to 10 megagrams per year or more. [40CFR61.355.a.4.ii]

3) Whenever a TABQ determination is made under condition III.B.1.u.2.ii above, Tosco shall submit an update of their original report under 40CFR61.357.a to the APCO, with a copy to the EPA Region IX administrator. [40CFR61.357.c]

2. Compliance with Permit Conditions: [Rule 216]

a. Tosco shall comply with all terms and conditions of this permit.

b. The need to halt or reduce a permitted activity in order to maintain compliance shall not be used as a defense for noncompliance with any permit condition.

c. This permit may be reopened by the APCO at any time for cause. For the purposes of this permit, the following circumstances shall constitute cause: [Rule 216.K.1]

1) Tosco becomes subject to an additional federally-enforceable requirement, the remaining term of this permit is three years or more, and the effective date of that requirement is not later than the date on which this permit is due to be reissued.

2) The APCO or the EPA determine that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards, terms, or conditions of the permit.

3) The APCO determines that this permit must be revised or revoked to assure compliance with any applicable requirement, or EPA determines that the permit must be revised or revoked to assure compliance with any federally-enforceable requirement.

4) A TABQ equal to or exceeding ten (10) megagrams in any given year, as determine under 40CFR61 subpart FF and condition III.A.1.u to this permit, shall be considered cause for reopening this permit. [40CFR61.342.b]

d. This permit does not convey property rights or exclusive privilege of any sort.

e. Within a reasonable time period, Tosco shall furnish any information requested by the APCO, for the purpose of determining:

1) compliance with this permit;

2) air contaminant emissions;

3) whether or not cause exists to modify, revoke, reissue, or terminate this permit; or

4) whether or not cause exists for an enforcement action.

f. Continuing non-compliance with any federally-enforceable permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal.

g. If Tosco is not in compliance with any federally-enforceable requirement and a variance is obtained from the District's Hearing Board, Tosco shall submit to the APCO a schedule of compliance, which has been approved by the Hearing Board, as an administrative amendment to this permit.

h. A pending permit action, or notification of anticipated noncompliance, does not stay any condition of this permit.

i. All terms and conditions of this permit are enforceable by the EPA Administrator and citizens of the United States under the federal Clean Air Act unless referenced as being based on a District-only requirement. All terms and conditions of this permit, including those referenced as being based on a District-only requirement, are enforceable by the APCO.

j. This permit, or a true copy, shall be made readily accessible at Tosco's Santa Maria Refinery and shall not be altered or defaced in any way. [SIP Rule 201.E&F]

k. The terms and conditions of this permit shall apply to the equipment listed herein, which is operated by either Tosco or their contractor(s), and located at 2555 or 2565 Willow Road, Arroyo Grande, California, or on contiguous properties to those addresses, which are owned and controlled by Tosco.

3. **Emergency Provisions**: Tosco shall comply with the requirements of District Rule 107, Upset and breakdown Conditions. [Rule 107]

4. **Federal Regulation and District Compliance Plans** [Rule 216]

   a. The federally-enforceable compliance plan for total sulfur compounds as sulfur dioxide from the carbon plant kiln stack is attached as appendix A. Compliance is indicated by operating with a combination of production rate and green coke percent sulfur that plots to the left and below of the line indicated in the compliance plan. [SIP Rule 114.1.a and Rule 206]

   b. Tosco will continue to comply with those permit conditions with which it is in compliance, as identified in this permit.

   c. Tosco shall comply with all federally enforceable requirements that become applicable during the permit term, in a timely manner, as identified in this permit.

   d. Tosco shall comply with all APCO approved compliance plans. [District-only]

5. **Right of Entry**: The Regional Administrator of U.S. Environmental Protection Agency, the Executive Officer of the California Air Resources Board, the APCO, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises and, at reasonable times, be permitted to: [Rule 216.F.2.a]

   a. Inspect the stationary source, including equipment, work practices, operations, and emission-related activity; and

   b. Inspect and duplicate records required by this Permit to Operate; and

   c. Sample substances or monitor emissions from the source or other parameters to assure compliance with the permit or applicable requirements. Monitoring of emissions can include source testing.

6. **Severability**: The provisions of this Permit to Operate are severable, and, if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [Rule 216]

7. **Circumvention**: Tosco shall not build, erect, install, or use, any article, machine, equipment, or process subject to an applicable standard, if the use of which conceals an emission that would otherwise constitute a violation of that standard. [40CFR60.12, 61.19, 63.4.b]
8. **Permit Life**: This Permit to Operate shall become invalid five years from the date of issuance unless a timely and complete renewal application is submitted to the District. Tosco shall apply for renewal of this permit no later than six months before the date of expiration. Upon submittal of a timely and complete renewal application, this permit to operate shall remain in effect until the APCO issues or denies the renewal application. [Rule 216]

9. Payment of fees: Tosco shall remit Title V compliance determinations fees to the District in response to the District's invoice on a timely basis. Failure to remit fees in accordance with District Rule 302 shall result in forfeiture of this Permit to Operate. Operation without a permit to operate subjects the source to potential enforcement action by the District and the U.S. EPA pursuant to section 502(a) of the Clean Air Act. [Rule 216]

B. Specific Recordkeeping, Inspection, and Reporting Requirements. All records must be retained for a minimum of five (5) years and be made available to the APCO upon request. For the purposes of this permit, records shall be considered all calibration and maintenance records, all original strip-chart or electronic recordings for continuous monitoring and instrumentation, all records specifically required to be maintained herein, and copies of all reports required to be submitted herein. [District-only, Rule 206, for "District-only" records; Rule 216.F.1 for all other records; and, for B-505, 40CFR60.48c.i]

1. Recordkeeping: Tosco shall record: [District-only, Rule 206]

a. All AN-1707/1709 tail gas CMS data as follows: [Rule 206]

1) Any measurement made. [40CFR60.105.a.6]

2) Relative accuracy tests performed in accordance with EPA Method 15.

3) Calibration drift test results as required by 40CFR60, Appendix B, PS-5. [40CFR60-App.B, PS-5, 1.1.3 and PS-2, 9]

4) Daily records of the calibration including the date, zero and span values, and calibration drift. [40CFR60.13.d.1]

5) Records of all maintenance.

i. Date, place, and time of maintenance activity;

ii. operating conditions at the time of maintenance activity;

iii. date, place, name of company or entity that performed the maintenance activity and the methods used; and

iv. results of the maintenance.

6) All data sufficient to report excess emissions and CMS downtime as required by 40CFR60.105.e.4.ii and 40CFR60.7.c.

7) The original FQI 1759 strip chart which shows tail gas combustor duty and fuel gas sulfur content. [District-only, Rule 206]

b. AN-603 fuel gas hydrogen sulfide CMS data as follows: [Rule 206]

1) Any measurement made. [40CFR60.105.a.4]

2) Relative accuracy tests performed in accordance with EPA Method 15.

3) Calibration drift test results as required by 40CFR60, Appendix B, PS-7. [40CF60-App.B, PS-7, 1.1.3 and PS-2, 9]

4) Daily records of the calibration including the date, zero and span values, and calibration drift. [40CFR60.13.d.1]

5) Records of all maintenance.

i. date, place, and time of maintenance activity;

ii. operating conditions at the time of maintenance activity;

iii. date, place, name of company or entity that performed the maintenance activity and the methods used; and

iv. results of the maintenance.

6) All data sufficient to report excess emissions and CMS downtime as required by 40CFR60.105.e.3.ii and 40CFR60.7.c.

c. Boilers B-504, B-505, and B-506 fuel usage continuously by the Distributed Control System (DCS) and hourly in an operating log. [Rule 206 and 40CFR60.48c.g for B-505, Rule 206 and 40CFR60.49b.c.3 for B-506, and District-only Rule 206 for B-504]

d. Coke calcining waste heat boiler steam production continuously by strip chart and hourly in an operating log; and boilers B-504, B-505, and B506 steam production continuously by the DCS and hourly in an operating log. [Rule 206 and 40CFR60.49b.c for B-506, and District-only Rule 206 for all other units]

e. The following parameters for the B-2A/B, B-62A/B, B-102A/B, and B-201A/B heaters. For the purposes of this condition, the fuel gas heat content shall be based on the results of the most recent compliance testing. [UR-SIP Rule 205]

1) monthly heat input for each heater in terms of mmBtu per month, and

2) cumulative heat input for each heater in terms of mmBtu, on a monthly basis, for the most recent 12-month rolling period.

f. The following parameters for the B-505 boiler. For the purposes of this condition, the fuel gas heat content shall be based on the results of the most recent compliance testing. [UR-SIP Rule 205]

1) daily heat input, in terms of mmBtu, and

2) cumulative heat input, in terms of mmBtu, for the current calendar year.

g. The total daily crude oil feed to the refinery in barrels and, at the end of each calendar month, the cumulative total crude oil feed for the preceding 12-month rolling period.

h. The maximum hourly green coke feed to the carbon plant in pounds on a daily average basis. [Rule 206 and SIP Rule 114.1.a]

i. All periods that the coke calcining kiln is not in operation.

j. All periods that the carbon plant waste heat boiler is not in operation.

k. Calcining kiln preheater system triethylene glycol usage (TEG) in the form of monthly TEG additions to the system and the cumulative total amount charged for the preceding 12-month rolling period. [UR-SIP Rule 205]

l. At least once per day, the pressure drop across the coke calcining kiln, cold side multiclone.

m. The daily amount of sulfur pelletizing plant production and shipping, when operation occurs during any part of a day. That record shall also include a running balance of stockpiled sulfur.

n. Calcined coke product elevator bypass conveyor usage including the date of operation, number of hours of operation, the reason for use, and the amount of material conveyed. All information may be reflected on the operator's log sheet.

o. Gas oil loading and unloading at the gas oil loading rack.

p. Calcined coke handling, storage, and loading equipment inspection dates and results. Equipment repair date and description, if applicable, shall also be included.

q. Sulfur pit air sweep quarterly air flowrate results performed under condition C.2.e below.

r. Inspection results, adjustments, and repairs made to any floating roof storage tank seal. [for Tanks 822 & 823, District-only, Rule 206; for Tank 903, Rule 206 and 40CFR60.116b.a; and, for all other tanks, Rule 206]

s. The location, date, and corrective action taken for units subject to 40CFR60, Subpart QQQ, Waste Water Systems: [40CFR60.697.b thru e]

    1) drains: if a water seal is found dry, a drain cap or plug is found missing, or any other problem is identified that could result in VOC emissions;

    2) junction boxes: if a broken seal, gap, or any other problem is identified that could result in VOC emissions;

    3) sewer lines: if any problem is identified that could result in VOC emissions;

    4) oil-water separators: if any problem is identified that could result in VOC emissions; and

    5) closed vent systems: if a leak is measured or any problem is identified that could result in VOC emissions. In addition, the background level and the maximum level of VOC

concentration shall be recorded if a leak is measured.

6) If repairs cannot be performed without process unit shutdown, the reason for delay, the expected date of repair, the signature of the person responsible for the delay, and the date of successful repair shall be recorded.

t. For the life of the refinery, Tosco shall maintain a copy of the design specification used to comply with 40CFR60, Subpart QQQ, Waste Water Systems. [40CFR60.697.f]

u. For the life of the refinery, Tosco shall maintain plans and specification as necessary to qualify for the exclusions allowed under 40CFR60, Subpart QQQ, Waste Water Systems, as follows: [40CFR60.697.g thru j]

1) capped or plugged inactive drain location; and

2) stormwater sewer, ancillary equipment, and non-contact cooling water separation from the oil water drain system.

v. All records required under 40CFR60 subpart GGG: [40CFR60.592.e and for all naphtha stream components, 40CFR63.648.a after August 18, 1998]

1) A list of all subject components categorized by type of service. [40CFR60.486.e.1]

2) A list, which has been signed by the owner or operator, of all components designated as having no detectable emissions. [40CFR60.486.e.2]

3) For each compliance test to determine no detectable emissions, the following data: [40CFR60.486.e.4]

i. the beginning date of the test;

ii. the measured background level; and

iii. the maximum instrument reading.

4) A list of all valves designated as unsafe-to-monitor or difficult-to-monitor, including an explanation for that designation and a plan for monitoring each valve. [40CFR60.486.f]

5) If a leak is detected, log the following data: [40CFR60.486.c]

i. the instrument, operator, and equipment identification numbers;
ii. the dates of detection and each repair attempt;

iii. the method of each repair attempt;

iv. the phrase "above 10,000", if the maximum instrument reading after an attempt at repair is equal to or greater than 10,000 ppm; and

v. the date of successful repair of the leak.

6) If a leak is not repaired within 15 days of detection, log the following data: [40CFR60.486.c]

i. the phrase "repair delayed", the reason for the delay, and the expected date of repair;

ii. the signature and printed name of the owner or operator whose decision is was that a repair must be delayed, if the reason for delay is that the repair could not be effected without a process shutdown;

iii. the date(s) of the respective process unit's shutdown that occur while the equipment is not repaired.

7) For closed vent systems, the relief and recovery system, and the flare system: [40CFR60.486.d]

i. detailed schematics, design specifications, and P&ID diagrams;

ii. the date(s) and description(s) of any changes in the design specifications;

iii. the description of the parameter(s) monitored to ensure that the systems are operated and maintained in accordance with their design and an explanation of why each parameter was selected for monitoring; and

iv. a log of:

(a) periods when the systems are not operating as designed, including when the flare pilot flame is extinguished; and

(b) dates of startup and shutdown of the systems.

w. All records required under 40CFR61 subpart M. [40CFR61- M]

1) For all asbestos containing material (ACM) transported away from the Santa Maria Refinery and Carbon Plant, and using a form similar to that shown in figure 4 to subpart M, record: [40CFR61.150.d.1]

i. The name, address, and telephone number of the waste generator.

ii. The District's name and address as the local agency responsible for administering the asbestos NESHAP program.

iii. The approximate quantity of ACM in cubic yards.

iv. The name and telephone number of the disposal site operator.

v. The name and physical location of the disposal site.

vi. The date transported.

vii. The name, address, and telephone number of the transported.

viii. A certification the ACM are fully and accurately described; are classified, packed, marked, and labeled; and are in all respects in proper condition for transport.

x. All records required under 40CFR61 subpart FF. [40CFR61.355.a.4.i]

1) A record which identifies each waste stream that is subject to subpart FF. [40CFR61.356.b]

2) For each waste stream which is subject to subpart FF, a record which includes all test results, measurements, calculations, and other documentation used to determine the following information for that waste stream: [40CFR61.356.b.1]

i. waste stream identification,

ii. water content,

iii. whether of not the waste stream is a process water stream,

iv. annual waste quantity,

v. benzene concentration range,

vi. annual average flow-weighted benzene concentration, and

vii. annual benzene quantity.

3) When the annual waste quantity for process unit turnaround waste is determined by

selecting the highest annual quantity of waste managed from historical records representing the most recent five (5) years of operation, a record which includes all test results, measurements, calculations, and other documentation used to determine the following information: [40CFR61.356.b.5]

i. identification of the process units undergoing turnaround,

ii. most recent turnaround date for each unit,

iii. identification of each process unit turnaround waste,

iv. water content of the waste,

v. annual waste quantity,

vi. benzene concentration range of the waste,

vii. annual average flow-weighted benzene concentration of the waste, and

viii. annual benzene quantity.

y. The manufacturer's brand name and designation of each solvent used to thin or reduce any coating which is applied to a metal surface by either Tosco or any contractor employed by Tosco. Purchase records will be sufficient to satisfy this recordkeeping requirement. Material Data Safety Sheet information sufficient to determine the non-photochemical reactivity of those solvents shall be maintained within easy access of this record. [SIP Rule 407.H.2]

z. The manufacturer's brand name and designation of each architectural coating used in containers of one quart capacity or larger, and the solvent used to thin or reduce those coatings, which is applied by either Tosco or any contractor employed by Tosco. Purchase records will be sufficient to satisfy this recordkeeping requirement. Material Data Safety Sheet information sufficient to determine the non-photochemical reactivity of those coatings and solvents shall be maintained within easy access of this record. [SIP Rule 407.H.3]

2. Inspections, calibrations, and sampling: Tosco shall inspect, calibrate, or sample, the following processes as indicated. The results shall be recorded in an operational log or as specified. [Rule 206 and, for "District-only" inspections, District-only, Rule 206]

a. On a **per shift** basis:

Process	Desc/ID	Parameter
B-2-f	TK-405 & 406	1) Visually inspect for floating oil. Record the date, time, staff initials, surface area appearance in oil percentage, and tank activity at the time of observation. In additional, the final observation during a greater than 50% oil coverage episode, as described in Condition F.4.a below, shall be logged and the length of that episode noted. [District-only, Rule 206]
A-1,A-2, B-1,B-2, B-3,C, D-1,E-1, E-2,G,H, I,J,K,L, O,P,R-1	fugitive emissions program	2) On a continual basis and by using visual, audible, or olfactory means, monitor all pumps and valves in heavy liquid service, pressure relief valves in light liquid or heavy liquid service, and flanges and other connectors for leaks. Within five (5) calendar days of detecting evidence of a leak, the suspected component shall be monitored with an instrument. [40CFR60.482-8] i. A leak is defined as an instrument reading of 10,000 ppm or greater. ii. A leaking component shall be affixed with a weatherproof tag which displays the respective equipment's identification number. This tag may be removed upon repair, except for valves which must be monitored for two (2) successive months following repair and found to not leak before their tag may be removed. [40CFR60.486.b] iii. Any leak shall be repaired as soon as practicable, with the first repair attempt occurring within 5 calendar days and the final repair not later than 15 calendar days after detection, except as allowed under condition III.B.3.i.

b. On a **daily** basis:

Process		Description	Parameter
1)	B-1-h	cooling tower	Visually inspect for floating oil. [District-only, Rule 206]
2)	J	AN-603	Analyzer calibration. [40CFR60.13.d.1]
3)	K	AN-1707/1709	Analyzer calibration. [40CFR60.13.d.1]

c. On a **weekly** basis:

Process		Description	Parameter
1)	B-1-h	cooling tower	Sample for floating oil using current EPA method for determining oil and grease in water. [District-only, Rule 206]
2)	I,J	fuel gas	Fuel gas shall be sampled for hydrogen sulfide by using the drager tube method and total sulfur content using the Tutweiler test method. [Rule 206 and SIP Rule 404.E.1 for total sulfur]
3)	I,J	sulfanol	The concentration of Sulfolane "W" in the D601A and D601B H2S absorbers shall be sampled using a method subject to the approval of the APCO and recorded. [UR-SIP Rule 205 & District-only, Rule 204]
4)	A-1,A-2,B-1, B-2,B-3, C, D-1,E-1,E-2, G,H,I,J,K,L, O,P,R-1	fugitive emissions program	Inspect each pump in light liquid service for leaks, except those designated as having no detectable emissions. A "leak" is defined as liquid dripping from the pump seal. See condition III.B.2.a.2 above for tagging and repair requirements. [40CFR60.482-2.a.2, 40CFR60.482-2.d.4, and for all naphtha stream components, 40CFR63.648.a after August 18, 1998]

d. On a **monthly** basis:

Process		Description	Parameter
1)	A-2,E-1,E-2, G,I,J,L,O,P	active drains, drain hubs, and catch basins	Inspect each drain, drain hub, and catch basin for indications of low water level, or other condition which would reduce the effectiveness of the water seal control. [40CFR60.692-2.a.2] i. Water shall be added if low water level is found. ii. All other abnormal conditions shall be repaired as soon as practicable, but not later than 24 hours after detection, except as allowed under condition III.B.3.i.
2)	S-1,S-2,S-3	calcined coke handling, storage, and loading	Inspect all equipment to verify proper operation. All deficiencies shall be repaired within forty-eight (48) hours. [District-only, Rule 206]

(continued)

d. On a **monthly** basis: (continued)

Process		Description	Parameter
3)	A-1,A-2,B-1, B-2,B-3,C,	fugitive emissions program	Monitor each pump in light liquid service for leaks, except for those with dual mechanical seals or those designated as having no detectable emissions. See condition III.B.2.a.2 above for tagging and repair requirements and the definition of "leak". [40CFR60.482-2.a.1 and for all naphtha stream components, 40CFR63.648.a after August 18, 1998]

e. On a **quarterly** basis:

Process	Description	Parameter
E-1, E-2	sulfur pits	Inspect the air intake sweeps for both the "A" and "B" side sulfur pits for proper operation of the pit vent system and quantitatively measure the air flowrate through each sweep. [District-only, Rule 206]

f. On a **semi-annual** basis:

Process	Description	Parameter
A-2,E-1, E-2,G,I, J,L,O,P	inactive drains	1) Inspect each plugged or capped drain to ensure that the plug or cap is in place and properly installed. Any abnormal condition shall be repaired as soon as practicable, but not later than 24 hours after detection, except as allowed under condition III.B.3.i. [40CFR60.692-2.a.4]
	junction boxes and manholes	2) Inspect each junction box and manhole to ensure the cover is in place and that the edge is tightly sealed. Any abnormal condition shall be repaired as soon as practicable, but not later than 15 calendar days after detection, except as allowed under condition III.B.3.i. [40CFR60.692-2.b.3]
	F-821A,B,&C, F-824, F-408&9	3) Inspect each oil-water separator, oily solids tank, and the slop oil tank to ensure there are no cracks or gaps in any seal and that all access doors and other openings. Any abnormal condition shall be repaired as soon as practicable, but not later than 15 calendar days after detection, except as allowed under condition III.B.3.i. [40CFR60.692-3.a.4]

(continued)

f. On a **semi-annual** basis: (continued)

Process	Description	Parameter
A-2,E-1, E-2,G,I, J,L,O,P	closed vent systems	4) Inspect each closed vent system for leaks. A "leak" shall be defined as an instrument reading of 500 ppm as methane. Any leak shall be repaired as soon as practicable, but not later than 30 calendar days after detection, except as allowed under condition III.B.3.i. [40CFR60.692-5.e.1]
	unburied sewer lines	5) Inspect each unburied sewer line for cracks, gaps, or other problems. Any abnormal condition shall be repaired as soon as practicable, but not later than 15 calendar days after detection, except as allowed under condition III.B.3.i. [40CFR60.692-2.c.2]
G	TK-822,823	6) Inspect all access doors and other openings to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions. [District-only, Rule 206]

g. On an **annual** basis:

Process		Description	Parameter
1)	A-1	TK-900,901, 903	i. Inspect the primary seal at four (4) locations to be selected by the APCO. [District-only Rule 425.G.6 for tanks 900 & 901, federally-enforceable 40CFR60.113b.b.1.i and Rule 425.G.6 for tank 903]
		TK-900,901	ii. Inspect the secondary seal. [UR-SIP Rule 205 & District-only, Rule 425]
		TK-903	iii. Inspect the secondary seal. [40CFR60.113b.b.1.ii and Rule 425.I.1]
2)	G	TK-822,823	Inspect the secondary seal. [District-only, Rule 206]
3)	A-1,A-2, B-1, B-2, B-3,C, D-1,E-1,E-2, G,H,I,J,K,L, O,P,R-1	fugitive emissions program	Within one week's time, monitor all valves in gas/vapor or light liquid service for leaks. See condition III.B.2.a.2 above for tagging and repair requirements and the definition of "leak". [40CFR60.483-1.b.2, 40CFR60.483-1.c.1 and for all naphtha stream components, 40CFR63.648.a after August 18, 1998]

(continued)

g. On an **annual** basis: (continued)

Process		Description	Parameter
4)	A-1,A-2, B-1,B-2, B-3,C,D-1, E-1,E-2,G, H,I,J,K,L, O,P,R-1	fugitive emissions program	Monitor each component for leaks that has been designated as having no detectable emissions as follows. "No detectable emissions" is defined as an instrument reading of less than 500 ppm above background. See condition III.B.2.a.2 above for tagging and repair requirements and the definition of "leak": [for all naphtha stream components, 40CFR63.648.a after August 18, 1998] i. pumps in light liquid service [40CFR60.482-2.e.3] ii. compressors [40CFR60.482-3.i.2] iii. closed vent systems [40CFR60.482-10.f.2]

h. On an **annual** basis, calibrate the following recording devices: [District-only, Rule 206]

Process		Description	Parameter
1)	D-1	B-504, 506	i Individual boiler inlet fuel flow instru-ments. [40CFR60.49b.c for B-506]
			ii. Individual boiler steam production instruments. [40CFR60.49b.c for B-506]
2)	R-3	carbon plant waste heat boiler	Steam production instrument.

i. At least once **every five years**:

Process	Description	Parameter
A-1	TK-800,801	Inspect the primary seal for gaps and physical condition. [District-only Rule 425.I.1]
G	TK-822,823	

j. At least once **every ten years**:

Process	Description	Parameter
A-1	TK-900,901,903	Inspect the primary seal for gaps and physical condition. [40CFR60.113b.b.1.i and Rule 425.I.1]

3. Unusual operating conditions: actions and reporting [District-only, Rule 206]

a. AN-603 fuel gas analyzer operation:

1) Any exceedance (instantaneous) of 160 ppmv H_2S in the fuel gas shall be reported immediately to the District, and strip charts for periods of exceedance included in the monthly report, under condition III.B.4.a.

2) Any exceedance of 160 ppmv H_2S, averaged over 3 hours, shall be included with the monthly report under condition 4.a and shall include: the magnitude of emissions due to excess H_2S, conversion factors used, and date and time of commencement and completion of each time period of excess emissions. [40CFR60.105.e.3.ii]

3) Specific identification of any exceedance of 160 ppmv H_2S, averaged over 3 hours, that occurs during start-up, shut-down, or malfunction of the gas sweetening systems shall be included with the monthly report under condition 4.a and shall include the nature and cause of any malfunction and corrective action taken.

4) The date and time identifying each period during which the CMS was inoperative, other than for daily calibration, and the nature of system repairs and adjustments shall be logged and reported to the APCO in accordance with the provisions of District Rules 107 and 113. A summary report of this information shall be included with the quarterly report as required in condition III.B.4.b. [40CFR60.7.b&c]

b. Failure of either AT-601A/B sulfur compound analyzer shall be reported to the APCO as soon as reasonably possible but in any case within one (1) hour after the start of the next regular business day. A written report of analyzer failure shall be filed within ten (10) working days that includes the reason for failure, the corrective action taken, and the affect on plant operations. [UR-SIP Rule 205]

c. AN-1707/1709 tail gas analyzer operation:

1) The date and time identifying each period during which the CMS was inoperative, other than for daily calibration, and the nature of system repairs and adjustments shall be logged and reported to the APCO in accordance with the provisions of District Rules 107 and 113. A summary report of this information shall be included with the quarterly report as required in condition III.B.4.b. [40CFR60.7.b&c]

2) Any exceedance of 300 ppmv TRS, averaged over 12 hours, shall be included with the monthly report under condition 4.a and shall include: the magnitude of emissions due to excess TRS, conversion factors used, and date and time of commencement and completion of each time period of excess emissions. [40CFR60.105.e.4.ii]

d. Flaring

1) Flaring as a result of either G-212 compressor being inoperative or flaring in excess of sixty (60) minutes cumulative in any given day, for whatever reason, shall be considered an upset under District Rule 107 and may be a violation of this condition unless relief is granted in accordance with the provisions of that rule. The written report shall include, in addition to those items required by Rule 107, the volume and heat content of the flared gas.

2) All incidences of flaring less than sixty (60) minutes cumulative in any given day shall be logged and reported to the APCO in accordance with the provisions of District Rule 107 and shall also include the information required in condition d.1 above. These incidences of flaring are not considered a breakdown or upset condition.

3) Flaring during maintenance, testing of the flare system, or turnarounds shall be logged. These incidents of flaring are not considered a breakdown or upset condition.

e. With the exception of routine testing, events requiring the opening of any coke calciner hot stack cap leaf shall be logged by the shift operator and immediately reported to the District. A written explanation of such events, including start and end times, cause and resolution of occurrence, copies of strip charts indicating kiln stack temperature readings at 30 ft. and 90 ft. above the stack base, and other pertinent information, shall be submitted to the APCD within ten (10) calendar days.

f. Tail gas unit desalting plant:

1) The APCO shall be notified in writing no less than fourteen (14) days prior to the arrival of the tail gas unit temporary desalting plant and again no more than fourteen (14) days after its departure.

2) Any failure of the temporary desalting plant or associated equipment which causes the release of an air contaminant shall be considered an upset under District Rule 107 and shall be a violation of this Condition unless breakdown relief is granted in accordance with the provisions of that rule.

g. Any deviation from any requirement in this permit, excluding those reported under District Rule 107, Breakdown and Upset Conditions as required by condition III.A.3, shall be reported to the APCO as follows: [Rule 216.F.1.n]

1) As soon as reasonably possible, but in any case within four (4) hours, after its detection.

2) As soon as the occurrence has been corrected, but no later than 10 calendar days after the event, through a written report which includes the probable cause of the deviation and the corrective actions or preventative measures taken.

h. At least 10 working days before asbestos stripping or removal work, the APCO shall be

notified as required by section 61.145.b.3.i of 40CFR61 subpart M, National Emission Standard for Asbestos. [40CFR61.145.b.3.i]

i. The repair of any component subject to 40CFR60 subparts QQQ or GGG may be postponed until the next refinery or respective process unit shutdown if that repair is technically impossible without complete or partial refinery or process unit shutdown. Additional delay of repair provisions for subpart GGG components appear in 40CFR60.482-9. [40CFR60.692-6 and 482-9]

4. Reporting. Each report, due on the date indicated in the following table, should include data for the respective time periods in any given year unless otherwise indicated. [Rule 206]

Due Date	**Monthly Data**	**Quarterly Data**	**Semi-annual Data**	**Annual Data**
January 31	December	October 1 through December 31	July 1 through December 31	
March 1				January 1 through December 31
April 30	March	January 1 through March 31		
July 31	June	April 1 through June 30	January 1 through June 30	
October 31	September	July 1 through September 30		

a. On a calendar **monthly** basis, Tosco shall submit a report to the APCO. That report shall be submitted no later than 10 working days after the end of the month and shall include for the respective calendar month:

1) Daily steam records kept under condition III.B.1.d. [District-only, Rule 206]
2) Results of hydrogen sulfide and total sulfur samples drawn on the fuel gas under condition III.B.2.c.2.
3) Daily average AN-1707/1709 tail gas monitoring results.
4) Copies of records and an explanation for any unusual event which either affects the normal operation of the B702 tail gas combustor or causes the fuel gas sulfur content to exceed an instantaneous value of 160 ppm H_2S. [District-only, Rule 206]
5) A summary of flaring that occurs as a result of maintenance, testing of the flare system, or turnarounds. [District-only, Rule 206]
6) If the gas oil loading rack is used to load or unload material: [District-only, Rule 206] i. the maximum daily loading rate in barrels per day, ii. the maximum pumping rate in gallons per minute, and iii. the maximum RVP of material received.
7) A list of all floating roof storage tanks which were emptied and degassed and/or who's roof was landed on its support legs. The reason for that activity for each tank and results of all inspections required by this permit shall also be included. [Rule 206 for Tank 903 and District-only, Rule 206 for all other tanks]

b. On a **quarterly** basis, Tosco shall submit a report to the APCO, with a copy to the EPA Region IX Administrator. Each report shall be submitted no later than January 31, April 30, July 31, and October 31 of any given year, shall be certified to be true, accurate, and complete by a responsible official, and shall include the following data:

1) Summary information of the hydrogen sulfide concentration in the refinery fuel gas based on records maintained under condition III.B.1.b.1. [Rule 206]
2) Average sulfur content of the fuel gas supplied to the B-505 boiler. [UR-SIP Rule 205]
3) Those dates, if applicable, in the preceding quarter when the daily oxides of sulfur emissions from the B-505 boiler exceeded 100 lbs. [UR-SIP Rule 205]
4) All periods that the coke calcining kiln is not in operation. [District-only, Rule 206]
5) All periods that the carbon plant waste heat boiler is not in operation. [District-only, Rule 206]
6) Report excess emissions as indicated by, or CMS downtime of, AN-603, Fuel Gas CMS, or AN-1707/1709, Tail Gas CMS, using the summary report form that appears in 40CFR60.7, Figure One (1). If the total duration of excess emissions is less than one percent (1%) and the CMS downtime is less than five percent (5%) of the total operating time, only the summary report form, with a statement that no excess emissions and/or no CMS downtime occurred, need be submitted. If the excess emissions or CMS downtime exceeds either of those times, the summary report shall be accompanied by a report which includes: [40CFR60.7.c] i. The magnitude of excess emissions, conversion factors used, and the date and time of commencement and completion of each time period of excess emissions. ii. The process operating time during the reporting period. iii. Whether the excess emissions occurred during start-up, shutdown, or malfunction. iv. The nature and cause of any malfunction, the corrective action taken, or preventive measures adopted. v. The date and time of CMS downtime, except for zero and span checks, and the nature of system repairs or adjustments.

c. On a **semi-annual** basis, Tosco shall submit a report to the APCO, with a copy to the EPA Region IX Administrator. Each report shall be submitted no later than January 31 and July 31 of any given year, shall be certified to be true, accurate, and complete by a responsible official, and shall: [Rule 216.F.1.c.3]

1) Certify that all of the required inspections have been carried out in accordance with Subpart QQQ. That report shall also summarize all inspections when a water seal was dry or otherwise breached; when a drain cap or plug was missing or improperly installed; or cracks, gaps, or other problems were identified that could result in VOC emissions. [40CFR60.698.b.1 & c]
2) Include a fugitive emission program summary in accordance with 40CFR60, Subparts GGG and VV: [40CFR60.487.c and for all naphtha stream components, 40CFR63.648.a after August 18, 1998] i. A list of leaking components by month including those whose repaired was delayed and justification for that delay. ii. Process unit shutdown dates. iii. Revisions to the component count list. iv. A calculation of the percentage of valves in gas/vapor and light liquid service, which have been found to leak, in accordance with 40CFR60.483-1.c.3. [Rule 206]
3) Include a summary of deviations from requirements in this permit. [Rule 216.F.1.c.3.i]
4) If Tosco is not in compliance with any federally-enforceable requirement, include a progress report on the schedule of compliance which has been approved by the District Hearing Board. That report shall include: [Rule 216.F.2.c] i. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and ii. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
5) Include, for each of the preceding six months, the 12-month rolling period totals for: [District-only, Rule 206 for triethylene glycol charged] i. individual fuel heat input in mmBtu for the B-2A, B-2B, B-62A, B-62B, B-102A, and B-102B heaters; and ii. triethylene glycol charged to the calciner preheater system.
6) include the maximum, daily average, hourly heat input rate for the B-2A, B-2B, B-62A, B-62B, B-102A, and B-102B heaters; and the B-505 boiler. [District-only, Rule 206]
7) include the maximum daily crude oil feed to the refinery in barrels and, for each of the preceding six months, the 12-month rolling period totals for crude oil feed. [District-only, Rule 206]
8) include the maximum hourly green coke feed to the carbon plant in pounds. [District-only, Rule 206]

d. On an **annual** basis, no later than March 1 of each year, Tosco shall submit:

1)	A Compliance Certification Report to the APCO pursuant to District Rule 216.L.3. This report shall identify each federal applicable requirement in this permit, the compliance status of each subject process unit, whether the compliance was continuous or intermittent since the last certification, and the method(s) used to determine compliance. Each report shall be certified to be true, accurate, and complete by a responsible official and a copy of this portion of the annual report shall also be submitted to the EPA Region IX Administrator. [Rule 216.L.3]
2)	Total Annual Benzene Quantity (TAB-Q) as required by 40CFR61.357.c. A copy of this portion of the annual report shall also be submitted to the EPA Region IX Administrator. [40CFR61.357.c]
3)	Total annual heat input for the B-505 boiler in mmBtu. [District-only, Rule 206]
4)	Summaries of automatic and manual calibration data and internal audits of the AN-1707/1709 tail gas plant monitor. [Rule 206]
5)	The location and current use of the calcined coke portable handling equipment, process S-3. A plot plan of the facility, with equipment locations indicated, shall be included. [District-only, Rule 206]

e. On an **annual** basis at least 10 working days before the end of the calendar year, the APCO shall be notified of the predicted asbestos renovations for the following year, if the total amount of RACM is estimated to be in excess of those amounts identified in condition III.A.1.t.2. [40CFR61.145.b.3.ii]

f. For Tanks 800, 801, 822, 823, 900, 901, and 903, a report of any excessive seal gap repair action shall be made to the APCO within 30 days of the repair. That report shall include the date of discovery and either: the date of repair; or, in the case of a delayed repair, the date of anticipated repair and reason for delay. [UR-SIP Rule 205 for tanks 900, 901, & 903]

C. Conditions common to more than one process unit:

1. Inspection and Maintenance Program for Fugitive VOC Emissions: [40CFR60-GGG and for all naphtha stream components, 40CFR63.648.a after August 18, 1998]

Subject Process	Condition
A-1, Tank Farm (naphtha streams) A-2, Tank Farm Vapor Recovery B-1, Coking Unit "A" (naphtha streams) B-2, Coker Steamout B-3, Gland Oil C, Coker Unit "B" (naphtha streams) D-1, Main Boiler Plant, B-504 & 506 D-2, Electrical Power Generation Plant E-1, Sulfur Recovery Units "A" and "B" E-2, Sulfur Recovery Support Units G, Oily Water Treatment H, Gas Oil Loading Rack I, Hydrogen Sulfide Absorption Unit "A" J, Hydrogen Sulfide Absorption Unit "B" K, Tail Gas Unit L, Product Pumps (naphtha streams) O, Hydrocarbon Relief and Recovery P, Process Water R-1, Petroleum Coke Calcining	a. Each subject process shall be inspected and maintained on a schedule that satisfies the provisions of 40 CFR 60, Subpart GGG, Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries. All inspection and report frequencies shall be based on the issuance date of this permit, January 1, 1998.
	b. A leak, as referenced in Subpart GGG, detected by the APCO or his designee shall constitute a violation of this condition with the exception of those components previously identified by Tosco that are awaiting repair. [District-only, Rule 206]
	c. The percentage of valves in gas/vapor and light liquid service which leak shall not exceed two (2.0) percent. [40CFR60.483-1.d]

(continued)

1. Inspection and Maintenance Program: (continued)

Subject Process	Condition
A-1,A-2,B-1, B-2,B-3,C, D-1,D-2,E-1, E-2,G,H,I,J, K,L,O,P,R-1	d. All pressure-vacuum relief valves shall be maintained in a leak-free condition except when the operating pressure exceeds the valve pressure setting or during testing. [40CFR60.482-4] 1) Leak-free is defined as an instrument reading of less than 500 ppm above background. 2) After the lifting of any pressure-vacuum relief valve, that valve shall be returned to leak-free condition as soon as practicable, but not later than five (5) calendar days after the release, except as allowed under condition III.B.3.i. 3) No later than five (5) days after the lifting of any pressure-vacuum relief valve, that valve shall be monitored to determine that it is leak-free.
	e. Each pump, which is equipped with a dual mechanical seal employing a barrier fluid system, shall: [40CFR60.482-2.d] 1) operate with the barrier fluid at a pressure that is greater than the pump stuffing box pressure; 2) employ a barrier fluid that is a heavy liquid; 3) employ a barrier fluid system which has a sensor to detect failure of the seal system, the barrier fluid system, or both and that sensor employs an audible alarm or the system is checked daily; 4) A "leak" is defined as liquid dripping from the pump seal. See condition III.B.2.a.2 above for tagging and repair requirements.

(continued)

1. Inspection and Maintenance Program: (continued)

Subject Process	Condition
A-1,A-2,B-1, B-2,B-3,C, D-1,D-2,E-1, E-2,G,H,I,J, K,L,O,P,R-1	f. Each compressor shall be equipped with a seal system that includes a barrier fluid system, which shall: [40CFR60.482-3] 1) operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or 2) employ a barrier fluid system that is connected by a closed vent system to a control device; 3) employ a barrier fluid that is a heavy liquid; 4) employ a barrier fluid system which has a sensor to detect failure of the seal system, the barrier fluid system, or both, and 5) that sensor employs an audible alarm or the system is checked daily; 4) A "leak" is defined as a failure of the seal system or the barrier fluid system. See condition III.B.2.a.2 above for tagging and repair requirements.
	g. Each sampling system, which is not an in-situ system, shall be equipped with a closed purge, closed loop, or closed vent system, which shall: [40CFR60.482-5] 1) return the purged process fluid directly to the process line; or 2) collect and recycle the purged process fluid; or 3) capture and transport all purged process fluid to a control device.

(continued)

1. Inspection and Maintenance Program: (continued)

Subject Process	Condition
A-1,A-2,B-1, B-2,B-3,C, D-1,D-2,E-1, E-2,G,H,I,J, K,L,O,P,R-1	h. Each open ended valve or line shall: [40CFR60.482-6] 1) be equipped with a cap, blind flange, plug, or secondary valve which seals the open end at all times except during operations requiring process fluid flow through the valve or line; and 2) if a secondary valve is used, be operated in such a manner that the valve on the process fluid end is closed before the secondary valve is closed; and 3) if a double block-and-bleed system is used, be allowed to operated with the bleed valve open during operations requiring venting of the line between the block valves but shall comply with this condition g at all other times.
	i. Closed vent system requirements. [40CFR60.482-10] 1) Vapor recovery system shall be operated to recover VOC emissions with an efficiency of 95% or greater. 2) All control devices shall be monitored to ensure that they are operated and maintained in accordance with their design specifications. 3) Closed vent systems shall be operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections. 4) Closed vent systems and control devices shall be operated at all times when emissions may be vented to them.

2. Waste Water Systems: [40CFR60-QQQ]

Subject Process	Condition
A-2, Tank Farm Vapor Recovery B-2, Coker Steamout B-3, Gland Oil D-2, Electrical Power Generation E-1, Sulfur Recovery A and B E-2, Sulfur Recovery Support G, Oily Water Treatment I, H2S Absorption Unit A J, H2S Absorption Unit B L, Product Pumps O, Relief and Recovery P, Process Water	Each subject oily water sewer, installed or modified after May 4, 1987, shall be inspected and maintained on a schedule that satisfies the provisions of 40 CFR 60, Subpart QQQ, Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems. All inspection and report frequencies shall be based on the issuance date of this permit, January 1, 1998. a. Each existing oily water sewer which is upstream of the first common junction box of a modified system is also included. b. The loss of a system water seal, for whatever reason, detected by the APCO or his designee shall constitute a violation of this condition with the exception of those components previously identified by Tosco that are awaiting repair. [District-only, Rule 206]

3. Fuel Gas Combustion: [40CFR60-J]

Subject Process	Condition
B-1, Coking Unit "A" C, Coker Unit "B" D-1, Main Boiler Plant, B-506 D-2, Electrical Power Generation Plant K, Tail Gas Unit O, Hydrocarbon Relief and Recovery	Each subject process shall be inspected and maintained on a schedule that satisfies the provisions of 40 CFR 60, Subpart J, Petroleum Refineries. All inspection and report frequencies shall be based on the issuance date of this permit, January 1, 1998.

4. Floating Roof Tanks: [District-only, Rule 425]

Subject Process	Condition
A-1, Tank Farm G, Oily Water Treatment	a. Single seal tanks shall not be used to store organic liquids with a true vapor pressure of 0.5 psia or greater. b. Double seal tanks shall not be used to store organic liquids with a true vapor pressure of 11 psia or greater. [Rule 206 & SIP Rule 407.A.2] c. There shall be no holes, tears, or other openings in the primary seal, the secondary seal, seal fabric, or seal envelope which allow the emission of volatile organic compounds to the atmosphere, except when the storage tanks are empty and out of service. d. The secondary seal shall not extend above the top edge of the tank wall. e. All roof openings, except pressure-vacuum relief valves and automatic bleeder vents, shall provide a projection of at least two (2) inches below the stored liquid surface. f. All openings and fittings shall be covered and shall have gaskets with no visible gaps. g. Any excessive seal gap shall be repaired within forty-five (45) days. A thirty (30) day extension may be requested from the APCO if repairs cannot be completed within forty-five (45) days because they are technically not possible without complete or partial shutdown of the refinery. h. Each time a storage tank is emptied and degassed, the roof fittings and primary and secondary seals shall be inspected for compliance with this permit. [Rule 206 and 40CFR60.113b.b.6 for Tank 903]

(continued)

4. Floating Roof Tanks: (continued)

Subject Process	Condition
A-1, Tank Farm G, Oily Water Treatment	i. Each time a storage tank roof is refloated after having been on its support legs, the primary and secondary seals shall be inspected for compliance with gap criteria of this permit. If a maintenance activity involves multiple flotation cycles, a single inspection may be performed after the last cycle. [Rule 206 and 40CFR60.113b.b.1.i for Tank 903] j. Storage tank seal inspections shall use 1/8", 1/4", ½", and 1½"gap measuring rods, at least 54" in length, constructed with a calibrated cross section in the measuring area to quantify gaps encountered. [Rule 206 and 40CFR60.113b.b.2 for Tank 903] 1) The gap measuring technique shall consist of an attempt to insert a rod of a known dimension between the metallic shoe seal or the wiper seal (as appropriate) and the storage tank wall. The rod should be held vertically and inserted with a firm pressure but not with enough force to deflect the seal. If the rod can be inserted its full length without significant resistance, the gap should be considered greater than the rod diameter. If the rod will not go past the seal, or if significant resistance is encountered, the gap should be considered equal to or less than the diameter of the rod. 2) Wherever the 1/8" gap measuring rod passes the seal freely, i.e. without forcing or binding against the seal, the gap width and length shall be determined sufficient to determine compliance with the requirements of condition III.E.1.a. For tanks 822, 823, and 903, the total gap width and perimetrical distance combination shall be determined for the length of the gap such that a square inches of gap per foot of tank perimeter value may be quantified.

5. Domed and Floating Roof Tanks: [District-only, Rule 206]

Subject Process	Condition
A-1, Tank Farm G, Oily Water Treatment P, Process Water	a. Potential nuisances caused by excessive odor ladened vapor emissions shall be mitigated during open tank work by: 1) Placing materials which are contaminated with stored product (i.e. seal material, fabric, etc.) into closed containers for handling and disposal in accordance with applicable regulations. 2) Generally maintaining clean work areas. 3) Vacuum truck pump discharge gases shall be vented to an emission control device capable of reducing volatile organic compound (VOC) emissions by 95% during all tank cleaning material removal. Fresh, activated carbon of sufficient capacity to prevent breakthrough of VOC emissions will be considered to achieve at least 95% control for the purposes of this condition. The air pollution control device shall be subject to the APCO's approval on a case-by-case basis prior to the beginning of work. 4) Tank cleaning: i. Adherence to the general Tank Cleaning Plans. ii. Submission of a specific tank cleaning plan, which may reference the general Plans, to the APCO for any tank cleaning process that may emit nuisance odors to the atmosphere. That plan shall be submitted to the APCO at least fifteen days prior to cleaning and shall describe the procedures to be employed to minimize potential nuisance odors.

(continued)

5. Domed and Floating Roof Tanks: (continued)

Subject Process	Condition
A-1, Tank Farm G, Oily Water Treatment	b. All gauging and sampling ports shall remain tightly closed and gas-tight except when gauging or sampling is taking place. [Rule 425.E.3.a & SIP Rule 407.A.2 for Tanks 550 & 551]
A-1, Tank Farm P, Process Water	c. The lifting of a relief valve except during testing shall be considered an upset under District Rule 107, Breakdown or Upset Conditions and Emergency Variances, and shall be a violation of this condition unless relief is granted in accordance with the provisions of that rule.
	d. The pressure regulation, alarm, and relief set-points shall be as follows: 1) Pressure regulation: +0.5 to +1.5 inches of water 2) Audible and visual alarms: 0.0 and +2.5 inches of water 3) Pressure-Vacuum valve protection: +3.0 and -1.0 inches of water respectively. 4) Emergency vent manhole lid protection: +4.0 inches of water.
A-1, Petroleum Tank Farm	e. Testing to determine the vapor pressure of stored materials shall be conducted as directed by the APCO.

6. New Source Performance Standard General Provisions:

Subject Process	Condition
A-1, Petroleum Tank Farm A-2, Tank Farm Vapor Recovery B-1, Coking Unit "A" B-2, Coker Steamout B-3, Gland Oil C, Coker Unit "B" D-1, Main Boiler Plant D-2, Electrical Power Generation E-1, Sulfur Recovery A and B E-2, Sulfur Recovery Support G, Oily Water Treatment I, H2S Absorption A J, H2S Absorption B K, Tail Gas Unit L, Product Pumps O, Relief and Recovery P, Process Water	a. Each subject process must comply with the notification, recordkeeping, and reporting requirements as specified in 40CFR60.7. All notifications and reports shall be submitted to the APCO with a copy submitted to the EPA Region IX Administrator. Such action shall include: [40CFR60.7] 1) Written notification of the anticipated date of any physical or operational change which may increase emissions, no less than 60 days prior to that date. 2) Maintaining records of the occurrence and duration of any startup, shutdown, or malfunction, except for fugitive emission components as allowed under 40CR60.486.k. 3) Maintaining a file of all measurements and performance evaluations for a minimum of five years.
	b. Each subject process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [40CFR60.11.d]

7. Fuel Gas System:

Subject Process	Condition
B-1, Coking Unit A, at heater burners C, Coking Unit B, at heater burners D-2, I, J	a. Provisions for extracting refinery fuel gas samples shall be provided and maintained. [UR-SIP Rule 205 for B-62A/B heaters and process units I & J]

(continued)

7. Fuel Gas System: (continued)

Subject Process	Condition
I, H2S Absorption Unit A J, H2S Absorption Unit B	b. In the event of a breakdown or upset of either unit, Tosco shall reduce crude oil throughput to a level such that the fuel gas produced by the remaining operating H_2S absorption unit will continue to meet the limits of Condition I.B.5. [UR-SIP Rule 205] c. Specific operating conditions added as a BACT finding for the B505 boiler, application number 1916: [UR-SIP Rule 205 & District-only, Rule 204] 1) The concentration of Sulfolane W in the H2S absorbers D601A and D601B shall be maintained at 20% or greater by weight. 2) The temperature of the stripper bottoms of units D602A and D602B shall be maintained between 250 degrees and 280 degrees F.

8. Fuel Gas Monitoring:

Subject Process	Condition
I, Hydrogen Sulfide Absorption Unit A J, Hydrogen Sulfide Absorption Unit B	a. The instrument for continuously monitoring and recording concentrations of hydrogen sulfide in the fuel gas, AN-603, shall be maintained in accordance with the provisions of 40 CFR 60, Subpart J. [40CFR60.105.a.4] b. Except for system breakdowns, repairs, calibration checks, and zero or span adjustments, the AN-603 system shall be in continuous operation. [40CFR60.13.e] c. In the event of a breakdown or upset of AN-603, which will last eight (8) hours or longer, a sample of the sweet gas shall be analyzed for hydrogen sulfide by the Drager tube method or other approved method. [UR-SIP Rule 205]

9. Visible Emissions [District-only, Rule 206]

Subject Process	Description	Condition
D-1, Main Boiler plant	B-504 & 506	a. Visible emissions shall not exceed Ringlemann #1 or twenty percent (20%) opacity for a period exceeding three (3) minutes aggregated in any sixty (60) minute period of time. [UR-SIP Rule 205 for B-504 & 506]
N, Abrasive Blasting Equipment	blast containment structure	
R-1, Petroleum Coke Calcining	hot stack	
R-3, Coke Calcining Kiln, Hot-Side Control System	cold stack	
V, Product Elevator Bypass	fugitives	
R-2, Coke Calcining Kiln, Cold Side Control System	fugitives	b. Visible emissions shall not exceed ten percent (10%) opacity for a period exceeding three (3) minutes aggregated in any sixty (60) minute period of time.
S-1, Coke Storage & Handling	fugitives	
U, Sulfur Pelletizing Plant	fugitives (a)	

Notes:

(a) The fall of material from the pelletizer spray shall not be evaluated as visible emissions if it drops to the ground within the staging area.

D. Compliance Testing Conditions. All testing shall be conducted in accordance with the District's Source Test Policy with results being reported to the APCO within 45 days of testing. [District-only, Rule 210.B.1]

1. Annual Refinery Compliance Testing [District-only, Rule 210.B.1]

Subject Process	Condition
B-1, Coking Unit "A" C, Coker Unit "B" D-1, Main Boiler Plant D-2, Electrical Power Generation Plant	Tosco shall contract with an independent laboratory to conduct the following tests annually using methods approved by the District: a. Determination of oxides of nitrogen emissions, calculated as NO_2; oxygen; carbon monoxide; and carbon dioxide from the: [UR-SIP Rule 205] B-504 boiler, B-505 boiler, B-506 boiler, crude heaters (B-2A/B), vacuum heaters (B-62A/B), coker heaters (B-102A/B), and steam superheaters (B-201A/B). b. Determination of total sulfur content of the fuel gas, including hydrogen sulfide, mercaptan, and other related fuel gas constituents, supplied to the: [Rule 206] B-504 and B-506 boilers, B-505 boiler, and Coking Unit A and B process heaters. c. Determination of the fuel gas heating value. d. Determination of sulfur and total HAP content of crude oil feed to refinery on a one day, weight percent basis. [Rule 206 for HAP content] e. Determination of the heat input rate to the following heaters and boiler: B-2A/B B-62A/B B-102A/B B-505

2. Annual Refinery Performance Audits [Rule 210.B.1 and 40CFR60.13.c]

Subject Process	Condition
J, Hydrogen Sulfide Absorption Unit "B" K, Tail Gas Unit	Tosco shall conduct or cause to be conducted an annual performance audit for the: AN-603 fuel gas monitor, and AN-1709/1709 tail gas monitor. Such testing shall be conducted in compliance with the requirements of 40 CFR 60 subpart 60.105(a).

3. Triennial Refinery Compliance Testing [District-only, Rule 210.B.1]

Subject Process	Condition
B-1, Coking Unit "A" C, Coker Unit "B" D-2, Electrical Power Generation Plant K, Tail Gas Unit	Triennially, Tosco shall contract with an independent laboratory to conduct tests to determine the: a. sulfur dioxide emissions from the: [UR-SIP Rule 205] crude heaters (B-2A/B), coker heaters (B-102A/B), and steam superheaters (B-201A/B). b. volatile organic compound emissions from the B-505 boiler. c. hydrogen sulfide and reduced sulfur compounds in the B-702 stack gas with the combustor on low fire, [Rule 206] d. sulfur dioxide emissions in the B-702 stack gas with the combustor on high fire, and [Rule 206] e. oxygen levels for at least a three day period at the AN-1707/1709 monitor sampling point. [Rule 206]

4. Annual Carbon Plant Compliance Testing [District-only, Rule 210.B.1]

Subject Process	Condition
R-2, Kiln, Cold-Side R-3, Kiln, Hot-Side	Tosco shall contract with independent laboratory to conduct the following tests annually using methods approved by the APCO: a. cold stack emissions of: [District-only, Rule 210.B.1 for NO_x and Rule 210.B.1 for all other pollutants] carbon monoxide, hydrochloric acid, oxides of nitrogen, particulates, and sulfur dioxide. b. cooler stack emissions of particulate matter. [Rule 210.B.1] c. sulfur content of liquid and gaseous fuels. d. petroleum coke feed: sulfur, volatile combustible material, percent moisture, percent ash, and percent heavy metal content. e. coke input feed and output product rates. f. steam production rate.

5. Triennial Carbon Plant Compliance Testing [Rule 210.B.1]

Subject Process	Condition
S-2, Calcined Coke Loading Control System	Triennially, Tosco shall contract with an independent laboratory to conduct tests to determine the rail car loading baghouse emissions of particulate matter.

6. Test Methods: The following methods shall be used for compliance testing and performance audits:

Parameter/Requirement	Method
sample and velocity traverses	EPA 1 or ARB 1
velocity and volumetric flowrate	EPA 2 or ARB 2
CO, CO_2, O_2, excess air, and molecular weight	EPA 3, ARB 3, or ARB 100
moisture content	EPA 4 or ARB 4
particulate matter	EPA 5 (plus back half), or ARB 5, for the cooler stack; and combined EPA 17/8 for the kiln stack
SO_x - refinery	ARB 6, 8, or 100
NOx	EPA 7E or ARB 100
visible emissions	EPA 9
visible emissions from flare	EPA 22
total reduced sulfur	EPA 15A or ARB 15A
AN-1707/1709 calib. check & relative accuracy	40CFR60, App B, PS-5
H_2S	EPA 15 or ARB 15
AN-603 calib. check & relative accuracy	40CFR60, App B, PS-7
H_2S in fuel gas - during AN-603 breakdown	length of stain tube [District-only]
total sulfur in fuel gas - weekly check	ARB-16A, Tutweiler option
total sulfur in fuel gas - annual check	ASTM D-5504 GC/SCD
fuel gas heat content	ASTM D-1946/3588
pH	EPA 150.1
particulate, H_2SO_4, SO_3, SO_2 - carbon plant	ARB 17/8 (combined)
HCl	ARB 421
fugitive VOC	EPA 21

E. Conditions specific to the identified process:

1. Process Unit A-1, Petroleum Tank Farm:

a. Floating roof storage tank seal limits:
[basis for conditions:
(1) District-only Rule 206 for tanks 800 & 801;
(2) UR-SIP Rule 205 & District-only Rule 425 for tanks 900 and 901; and
(3) federally-enforceable 40CFR60 subpart Kb and Rule 425 for tank 903]

1) The cumulative length of gaps between the tank shell and the primary seal: [40CFR60.113b.b.4 and Rule 425.G.5.a for Tank 903]
   i. Exceeding one-half inch (½") shall not be more than ten percent (10%) of the tank circumference.
   ii. Exceeding one-eighth inch (⅛") shall not be more than forty percent (40%) of the tank circumference.

2) No gap between the tank shell and the primary seal shall exceed one and one-half inches (1½") and no continuous gap greater than one-eighth inch (⅛") shall exceed ten percent (10%) of the tank circumference. [40CFR60.113b.b.4 and Rule 425.G.5.a for Tank 903]

3) The gap between the primary shoe seal and tank wall shall not exceed three (3) inches for a welded tank at any point from the liquid surface to 18 inches above it. [40CFR60.113b.b.4 and Rule 425.F.7.b for Tank 903]

4) There shall be no visible or measurable gap between the tank shell and the secondary seal, excluding gaps which occur within two inches (2") of a vertical weld seam. No gap within two inches (2") of a vertical weld seam shall exceed one-half inch (½"). [40CFR60.113b.b.4 and Rule 425.G.5.b for Tank 903]

b. Tanks 900, 901, and 903 shall comply with the construction and maintenance requirements of District Rule 425, Storage of VOC. [District-only, Rule 425]

1) Tanks 900, 901, and 903 shall utilize:
   i. both a primary and secondary seal; [40CFR60.112b.a.2 and Rule 425.E.1 for Tank 903];
   ii. a secondary seal which extends from the roof to the tank shell, is not attached to the primary seal, and is not shoe-mounted;
   iii. roof openings, except pressure-vacuum relief valves and automatic bleeder vents, which provide a projection at least two (2) inches below the liquid surface;
   iv. openings and fittings which are covered at all times and have gaskets with no visible gap, except when in use; [40CFR60.112b.a.2.ii for tank 903]
   v. sampling and gauging wells, and similar fixed projections through the floating roof, such as an anti-rotational pipe, which meet the requirements of District Rule 425.F.4 and F.5, except that the seals for the anti-rotation pipe for Tank 903 shall have no visible gap; [40CFR60.112b.a.2.ii for tank 903]

vi. emergency roof drain that drains back to the stored liquid which utilize a slotted membrane fabric cover, or equivalent, that covers at least 90 percent of the area of the opening; and

vii. a metallic shoe-type seal with one end of the shoe extending at least two (2) inches into the stored liquid and the other end extending a minimum vertical distance of 24 inches above the liquid surface.

2) If a secondary seal is voluntarily removed by the owner or operator, the primary seal shall be made available for inspection at that time. The owner or operator shall provide notification to the APCO no less than 72 hours prior to voluntary removal of a secondary seal.

3) Each tank's external floating roof shall be floating on the stored liquid's surface at all times except during maintenance or repair as allowed under Rule 425.C.

4) When each tank's external floating roof is resting on its leg supports, the process of filling, emptying, and refilling shall be continuous.

2. Process Unit A-2, Tank Farm Vapor Recovery System: [District-only, Rule 206]

a. The compressors barrier-fluid seals shall be maintained and operated to prevent leakage of the working fluids or gases to the atmosphere. [40CFR60-GGG&VV]

b. A spare compressor of equivalent capacity to compressor GB-451, with equivalent seal design, shall be permanently installed.

c. The blanketing gas used for this system shall be pipeline quality natural gas fuel supplied from a California Public Utility Commission regulated company and shall contain less than 1 gram per 100 cubic foot of sulfur compounds calculated as hydrogen sulfide.

d. The vapor recovery system shall be operated as designed and to recover all VOC emissions vented to it with an efficiency of at least 95 percent. [40CFR60.692-5.b]

3. Process Unit B-1, Coking Unit "A": Chromium based water treatment chemicals shall not be used in the cooling tower system. [District-only, Rule 413.C.2]

4. Process Unit B-2, Coker Steamout System: Standing oil in water settling tanks TK-405 and TK-406 shall be minimized at all times. Tosco shall take immediate action to reposition the installed oil skimmer to maximize oil collection for either tank in which greater than 50% of oil coverage is observed. Following such an observation, the oil coverage shall be monitored at least every half-hour, and the installed oil skimmer repositioned as necessary, until the observed oil coverage is less than 50%. [District-only, Rule 206]

5. Process Unit B-3, Gland Oil System: none

6. Process Unit C, Coking Unit "B": none

7. Process Unit D-1, Boiler plant: [District-only, Rule 206]

a. Steam received from the carbon plant waste heat boiler shall be used on a "first on, last off" basis as a source of steam for the Refinery.

b. Any changes in equipment that would increase the steam generating capacity or decrease steam generating efficiency of boilers B504 or B506 must be reviewed and approved by the APCO prior to implementation of the proposed change.

c. The Distributed Control System shall monitor and record the fuel flow and steam production from each boiler, B-504 and B-506. All monitoring and recording instruments shall be maintained in good operating order. [District-only, Rule 206 for B-505 steam flow and Rule 206 for all others]

d. At least two (2) District approved sampling ports located 90° apart as well as adequate sampling access and services for operating sampling and testing equipment shall be maintained on the boiler plant exhaust stack.

8. Process Unit D-2, Electrical Power Generation Plant: [District-only, Rule 206]

a. A dedicated APCO approved fuel gas meter shall be maintained and operated on the boiler at all times.

b. Emission reduction credits in the following amounts were provided for this permit to operate the electrical power generation plant:

VOC	NOX	SOx	CO	PM10
5.22 tpy	14.78 tpy	18.25 tpy	47.0 tpy	4.11 tpy

9/10. Processes E-1 and E-2, Sulfur Recovery Units and Support Units: [UR-SIP Rule 205]

a. Incineration of tail gas in either B-602 incinerator which lasts more than four (4) hours will require concurrent shut down of carbon plant calcining kiln.

b. Each B-600 reaction furnace shall employ an operating optical pyrometer, for the purposes of monitoring proper combustion; and both audible and visual control room alarms, indicating either high or low temperature.

c. The AT-601A/B sulfur compound analyzers shall be maintained in good operating condition. Components from one analyzer may not be used to repair the other analyzer except situations where the respective sulfur plant for the off-line analyzer is also off-line.

d. The sulfur pit vents shall be routed to the B-602 incinerators except during incinerator or sulfur pit vent system maintenance or repair.

e. The sulfur pit vent system shall be maintained in a leak free condition.

11. Process Unit G, Oily Water Treatment

a. A preventative maintenance inspection program for Tanks 822 and 823 shall be performed on the schedule identified in section III.B.2 above and which includes the following elements: [District-only, Rule 206]

1) Gap width between the tank wall and primary seal, and at the roof centering device, shall not exceed 1-1/2" inches at any point. Gap width between the secondary seal and the tank wall shall not exceed ½" inch at any point. The total gap between the primary or secondary seal and the tank wall shall not exceed 3.2 in^2/ft of tank wall perimeter or 0.32 in^2/ft of tank wall perimeter respectively. Each tank's circumference shall be considered to be 377 feet for the purposes of this condition. [UR-SIP Rule 205 for primary seal gap criteria]

i. Any gap that exceeds the amount allowed above shall be repaired within thirty (30) days with the exception of any gap in the secondary seal exceeding ½" which shall be repaired immediately.

ii. Adjustments and repairs made to any seal shall be noted in the inspection record.

iii. The APCO shall be notified by telephone immediately upon initiation of any repair.

2) Repairs may be delayed if they are technically impossible without complete or partial shutdown of the refinery or process unit.

3) The general physical condition of the seal and any unusual physical or operational conditions shall be noted during all inspections.

b. The following units shall be continuously vented to Process A-2, Tank Farm Vapor Recovery System:

1) three oil-water separators, F-821A,B,&C [SIP Rule 419.D.4.a and 40CFR60.692-3.b],

2) recovered oil surge drum, F-824 [Rule 206 and 40CFR60.692-3.a],

3) two recycled solids tank, F-408&9, [Rule 206 and 40CFR60.692-3.a].

c. Closed vent systems shall be operated and maintained in a leak free condition. [40CFR60.692-5.e.1]

1) For the purposes of this condition and compliance with 40CFR60, subpart QQQ, a leak shall be defined as an instrument reading of 500 ppm or more above background.

2) A leak detected by the APCO or his designee shall constitute a violation of this condition with the exception of those components previously identified by Tosco that are awaiting repair. [District-only, Rule 206]

12. Process Unit H, Gas Oil Loading Rack: [District-only, Rule 206]

a. A continuously accumulating metering device or equivalent shall be in place, calibrated, and maintained in good operating order on the truck loading and unloading lines of the shipping rack.

b. The APCO shall be notified no less than three (3) working days prior to the use of this equipment.

13. Process Unit I, Hydrogen Sulfide Absorption Unit "A": none.

14. Process Unit J, Hydrogen Sulfide Absorption Unit "B": none.

15. Process Unit K, Tail Gas Treating Unit: [District-only, Rule 206]

a. The instrument for the continuous monitoring and recording of concentrations of total reduced sulfur in the gases discharged to the atmosphere from the tail gas unit, AN-1707/1709, shall be in continuous operation, except for breakdowns, repairs, calibration checks, and zero or span adjustments, and shall be operated and maintained in accordance with 40CFR60, subpart J. [40CFR60.105.a.6 and 60.13.e]

b. The District approved sampling platform, electrical service, and sampling ports shall be maintained in good condition.

c. Tail gas treatment unit operations which result in the use of the sulfur plant incinerator(s), for a period which exceeds four (4) hours, shall be accompanied by a concurrent shutdown of the calcining kiln. The calciner shall remain shut down for the duration of the tail gas treatment unit down-time.

16. Process Unit L, Product Pump System: none

17. Process Unit M, Compressor Engine: [District-only, Rule 206]

a. The diesel engine must be tuned so that particulate emissions are not visible, except during start-up.
b. Provisions for fuel oil sampling shall be maintained and available upon District request.

18. Process Unit N, Abrasive Blasting Equipment: none.

19. Process Unit O, Hydrocarbon Relief and Recovery System: [District-only, Rule 206]

a. The compressor's barrier-fluid seals shall be maintained to prevent leakage of the working fluids or gases to the atmosphere. [40CFR60.482-3.a]

b. A spare compressor of equivalent capacity to compressor GB-455, with equivalent seal design, shall be available in storage at the refinery unless the spare compressor is in service.

c. The relief and recovery system shall be operated so as to minimize flaring.

d. Tosco shall operate and maintain the flare in accordance with the manufacturer's design and the provisions of 40CFR60.18. [40CFR60.18 and 40CFR60.482-10.d]

1) There shall be no visible emission except for periods not to exceed a total of 5 minutes during any two consecutive hours.

2) A pilot flame at the flare tip shall be maintained at all times as indicated by a minimum flame sensor temperature of 350^{o} F or visible flame. [40CFR60.695.a.4]

3) The flare system shall be in operation at all times when emissions may be vented to it.

4) The flare stack mass flow instrument shall be maintained and operated in accordance with the manufacturer's design.

20. Process Unit P, Process Water System: none.

21. Process Unit Q, Green Coke Handling System: [District-only, Rule 206]

a. If it is found that the emissions from the equipment or stockpiles covered by this permit are the cause of an excessive concentration of air contaminants anywhere off the property line, corrective steps shall be taken to control the emissions.

b. Tosco will, upon notification by the APCO, provide such information and analysis as will disclose the extent and degree of contamination that the equipment or stockpiles cause or may cause in the ambient atmosphere or at the option of the APCO, provide facilities for and allow access to, the equipment by Air Pollution Control District personnel or agents for inspection and/or emission testing.

22. Process Unit R-1, Petroleum Coke Calcining System: [District-only, Rule 206]

a. All four (4) cap leaves on the hot stack shall be kept closed while plant is in normal operation. When rapid reduction in steam production is needed, or for the purpose of testing leaf movement, one (1) cap leaf may be opened at a time.

b. The kiln shall not be operated unless its exhaust is controlled by the Hot-Side Control System.

c. The pyroscrubber combustion air fan shall only be used to supply air to the pyroscrubber burners. The fan shall not be used to supply air to the pyroscrubber chamber. The pyroscrubber inlet bustle air damper shall remain closed at all times.

23. Process Unit R-2, Coke Calcining Kiln, Cold Side Control System: none.

24. Process Unit R-3, Coke Calcining Kiln, Hot-Side Control System: [District-only, Rule 206]

a. This air pollution control equipment shall be maintained in operating order and shall continuously control emissions from the petroleum coke calcining system.

b. The magnesium hydroxide system must be kept in proper operating order and must be in use at all times when the baghouse is in operation.

c. There shall be no fugitive visible emissions from holes, tears or other openings in the baghouse fines handling system.

d. Steam production from the carbon plant waste heat boiler shall be monitored and recorded by strip chart. All monitoring and recording instruments shall be maintained in good operating order.

25. Process Unit S-1, Calcined Coke Storage and Handling: [District-only, Rule 206]

a. All equipment except the by-pass bin and the reclaim hopper must be vented to an approved air pollution control system.

b. This equipment shall be maintained in proper operating order. Ducts used to vent the coke sizing screen equipment shall have not more than ¼ inch of material build-up on the interior surface. Tosco shall supply access to the duct interior upon the District's request.

26. Process Unit S-2, Calcined Coke Loading Control System: none

27. Process Unit S-3, Calcined Coke Portable Handling Equipment: [District-only, Rule 206]

a. The APCO shall be notified before the calcined coke portable handling equipment is modified or removed from service.

b. This equipment may not be used offsite without prior approval of the APCO. Any use offsite may require submittal of an application for modification or change of location.

c. All hoppers shall be fed by a front-end loader.

28. Process Unit U, Sulfur Pelletizing Plant: The staging area shall be kept free of sulfur to minimize fugitive emissions associated with vehicular traffic around the sulfur plant. The staging area shall be defined as any area where equipment and/or trucks operate within the sulfur plant area including the roadway to the coke plant. Stockpiles, including a ten foot (10') strip around the base, are not considered the staging area. [District-only, Rule 206]

29. Process Unit V, Product Elevator Bypass System: the bypass conveyor system shall be used only under the following upset conditions: [District-only, Rule 206]

a. extreme high coke temperature excursion in product cooler where coke has the potential to exceed 400°F,

b. product elevator failure, or

c. other emergency condition that could result in the shut down of the plant.

F. Future Effective Conditions. The following conditions will become effective upon completion of the respective Authorities to Construct or upon the date as indicated.

1. Refinery MACT Standard: All subject processes shall comply with the provisions of 40 CFR 63, National Emission Standards for Hazardous Air Pollutants, subpart A, General Provisions, and subpart CC, Petroleum Refineries. [40CFR63.2.c.1, 63.4.a.1, 63.4.a.3, 63.4.a.5, and subpart CC]

a. For all naphtha stream components:

1) The provisions of subpart CC become effective on August 18, 1998. [40CFR63.640.h.2]

2) Compliance with the requirements of 40CFR60 subpart VV shall be deemed compliance with 40CFR63 subpart CC. [40CFR63.648.a]

b. Effective August 18, 1998, Tosco shall implement an APCO approved startup, shutdown, and malfunction (SSM) plan. [40CFR63.6.e.3]

1) Tosco shall submit a proposed SSM plan to the APCO for his consideration no later than May 18, 1998.

2) During SSM periods for all naphtha stream components, Tosco shall operate and maintain the refinery in accordance with the approved SSM plan.

3) Malfunctions shall be corrected as soon as practicable after their occurrence. [40CFR63.6.e.1.ii]

4) During SSM periods, Tosco shall record the following information. That record shall be maintained for at least five (5) years from the date of the respective event. [40CFR63.10.b.2]

i. The occurrence and duration of each SSM of process equipment and of air pollution control equipment.

ii. Actions taken which are different from those in the approved SSM plan, or

iii. Sufficient information to demonstrate that the actions taken were in accordance with the SSM plan.

5) If the SSM plan is revised, the previous version shall be retained for a minimum of five (5) years from the date of revision and shall be made available to the APCO upon request.

6) If it is found that the SSM plan fails to address a malfunction not initially included in that plan, Tosco shall submit a revised plan to the APCO for his approval within 45

days of that discovery.

7) If an approved SSM plan is activated and that plan was correctly implemented, a statement to that effect shall be included in the next regularly scheduled semi-annual report as required by condition III.B.4.c above. [40CFR63.10.d.5.i]

8) If an approved SSM plan is activated and the action taken is not consistent with that plan, Tosco shall report that event to the APCO, by telephone or facsimile transmission, within two (2) working days after commencing that action. Tosco shall also submit a report concerning that event within seven (7) working days after the event to the APCO, with a copy to the EPA Region IX Administrator, which includes: [40CFR63.10.d.5.ii]

   i. the name, title, and signature of the responsible official who is certifying the report's accuracy,

   ii. the reasons for not following the SSM plan, and

   iii. whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

c. Effective August 18, 1998, the following specific provision shall apply. [40CFR63 subpart A]

1) Tosco shall not fail to report, revise reports, or report source test results as required by subpart CC. [40CFR63.4.a.2]

2) Each subject process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [40CFR63.6.e.1.i]

3) Tosco shall submit Notification of Compliance Status reports for components in naphtha service on or before January 18, 1999. [40CFR63.654.d.2]

4) A copy of all reports submitted to the APCO pursuant to these conditions shall be submitted to the EPA Region IX Administrator. [40CFR63.10.a.4.ii]

5) Tosco shall identify, either by list or location, equipment in naphtha service less than 300 hours per calendar year. [40CFR63.654.d.5]

2. Risk Management Plan: Tosco shall submit a complete risk management plan (RMP) pursuant to 40CFR68 to the San Luis Obispo County Environmental Health Department no later than June 21, 1999. The APCO shall receive concurrent written confirmation of that submittal. Subsequent to that date, the annual compliance certification statement, submitted under condition III.B.4.d.1 of this permit, shall certify that the refinery is in compliance with 40CFR68, Chemical Accident Prevention Provisions. [40CFR68.10.a.1 and 68.215.a]

3. Green Coke Screen Replacement: Upon completion of Authority to Construct number

2108, the following shall apply:

a. The equipment description in term II.B.21.a shall be changed to read, "one (1) 8' x 16' triple deck Simplicity screen with two (2) 25 hp electric motors".

b. The screen shall be subject to the 10% opacity limitation of condition III.C.10.b. [District-only, Rule 206]

G. Permit Shield. The following federally-enforceable limits are subsumed by the conditions of this permit as referenced. Through this action, streamlined requirements which were previously District-only requirements become federally-enforceable if any subsumed requirement is federally-enforceable. All monitoring, recordkeeping, and reporting requirements that are associated with any subsumed requirement are also subsumed and shall not apply except as identified elsewhere in this permit.

1. The following storage tank requirements are subsumed and shall not apply:

   a. Tanks 550 and 551, process A-1, SIP Rule 407.A.2: requirement for a vapor recover system and that all gauging and sampling ports be maintained gas-tight. [conditions II.B.1.d and III.C.5.c]

   b. Tank 903, process A-1:

      1) 40CFR60.113b.b.4: primary and secondary seal gap requirements. [condition III.E.1.a.1]

      2) 40CFR60.112b.a.2: requirement for floating roof with double seals. [condition III.C.5.b]

      3) 40CFR60.113b.b.1.i and 113b.b.6 seal inspection requirements. [conditions III.C.5.i & h respectively]

      4) 40CFR60113b.b.2 inspection technique requirements. [condition III.C.5.j]

2. The 40CFR60.104.a.2.i requirement that the tail gas unit, process K, sulfur dioxide emissions not exceed 250 ppmv (dry) corrected to 0% O2 is subsumed and shall not apply. [condition I.A.14]

3. The 40CFR60.44b.a.1.ii requirement that the B-506 boiler NOx emissions not exceed 0.2 lb/mmBtu is subsumed and shall not apply. [condition I.A.1]

IV. Compliance Determination Fees. The following fee schedules shall apply to the indicated process units:

PROCESS		**FEE SCHEDULE (Rule 302.E)**		**Each**
A-1	Tank Farm, TK-100, 101, 550, & 551	18	fixed roof tank (domed)	4

	TK-800, 801, 900, 901, & 903	19	floating roof tank	5
A-2	Tank Farm Vapor Recovery	43	refining process unit	1
B-1	Coking Unit "A"	42	refining production line	1
	refinery in general	1	air monitoring oversight	1
	B-201A	3a	small process heater	1
	B-62A	3b	medium process heater	1
	B-2A & B-102A	3c	large process heater	2
	atm distillation, vacuum distillation, & coking sections	43	refining process unit	3
B-2	Coker Steamout	43	refining process unit	1
	TK-405 & 406	19	open top tank	2
B-3	Gland Oil	30	miscellaneous	1
	TK-500	18	fixed roof tank	1
C	Coking Unit "B"	42	refining production line	1
	B-201B	3a	small process heater	1
	B-62B	3b	medium process heater	1
	B-2B & B-102B	3c	large process heater	2
	atm distillation, vacuum distillation, & coking sections	43	refining process unit	3
D-1	Main Boiler Plant, B-504 and 506	3c	large boilers	2
	water booster pump engine, G-5151	26b	IC engine, additional	1
	water booster pump engine, G-5152	26b	IC engine, additional	1
D-2	Electrical Power Generation Plant	3c	large boiler	1

(continued)

IV. Compliance Determination Fees. (continued)

PROCESS		FEE SCHEDULE (Rule 302.E)		Each
E	Sulfur Units A & B	41	sulfur recovery unit	2
G	Oily Water Treatment	37	oily water treatment	1
	F-408, 409, & 824	18	fixed roof tank	3
	TK-822 & 823	19	floating roof tank	2
H	Gas Oil Loading Rack	40	loading rack	1
	TK-802	18	fixed roof tank	1
I	Hydrogen Sulfide Absorption Unit "A"	41	sulfur recovery unit	1
J	Hydrogen Sulfide Absorption Unit "B"	41	sulfur recovery unit	1
K	Tail Gas Unit	41	sulfur recovery tail gas unit	1
L	Product Pumps	30	miscellaneous	1
M	Compressor Engine	26a	IC engine - first	1
N	Abrasive Blasting	48	sandblasting	1
O	Hydrocarbon Relief and Recovery	43	refining process unit	1
P	Process Water System	43	refining process unit	1
	process water tank, TK-351	18	fixed roof tank (domed)	1
Q	Green Coke Handling	46c	large screening unit	1
	asphalt emulsion system	30	miscellaneous	1
R-1	Petroleum Coke Calcining	39	coke calcining	1
R-2	Calcining Kiln, Cold-Side Control	30	miscellaneous	1
R-3	Calcining Kiln, Hot-Side Control	30	miscellaneous	1
S-1	Calcined Coke Storage and Handling	46c	large screening unit	1
S-2	Calcined Coke Loading Control	30	miscellaneous	1
S-3	Calcined Coke Portable Handling	30	miscellaneous	1
U	Sulfur Pelletizing Plant	30	miscellaneous	1
V	Product Elevator Bypass System	30	miscellaneous	1

Tosco Santa Maria Refinery, T-3031

Appendix A - Carbon Plant SO_2 Compliance Plan

Dated: April 96
Referenced in Condition: I.A.15